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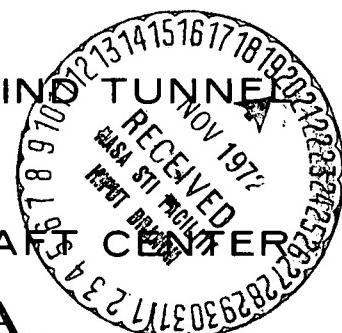


-SPACE SHUTTLE-

**LONGITUDINAL AERODYNAMIC  
CHARACTERISTICS OF LOW  
ASPECT RATIO WING  
CONFIGURATIONS IN GROUND  
EFFECT FOR A MOVING AND  
STATIONARY GROUND SURFACE**

by  
**P.O. Romere, MSC**  
**E.B. Chambliss, MSC**

LTV LOW SPEED WIND TUNNEL  
MANNED SPACECRAFT CENTER  
NASA



SADSAC SPACE SHUTTLE  
AEROTHERMODYNAMIC  
DATA MANAGEMENT SYSTEM

CONTRACT NAS8-4016  
MARSHALL SPACE FLIGHT CENTER

SPACE DIVISION  **CHRYSLER**  
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SADSAC/SPACE SHUTTLE

WIND TUNNEL TEST DATA REPORT

CONFIGURATION: 0.05 SCALE MODEL OF NASA/MSC ORBITER 040A

TEST PURPOSE: LONGITUDINAL AERODYNAMIC CHARACTERISTICS OF LOW ASPECT RATIO WING  
CONFIGURATIONS IN GROUND EFFECT FOR A MOVING AND STATIONARY GROUND  
SURFACE.

TEST FACILITY: LTV LOW SPEED WIND TUNNEL

TESTING AGENCY: NASA MANNED SPACECRAFT CENTER

TEST NO. & DATE: MA1, Aug 25, 1972

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CONTRACT NAS 8-4016

AMENDMENT 174

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LONGITUDINAL AERODYNAMIC CHARACTERISTICS OF LOW  
ASPECT RATIO WING CONFIGURATIONS IN GROUND EFFECT  
FOR A MOVING AND STATIONARY GROUND SURFACE

By P. O. Romere and E. B. Chambliss

ABSTRACT

A 0.05-scale model of the NASA-MSC Orbiter 040A Configuration was tested in the 15- by 20-foot test section of the Ling-Tempco-Vought Low Speed Wind Tunnel Facility on August 25, 1972. Test duration was approximately 80 hours during which the model was tested in and out of ground effect with a stationary and moving ground belt.

Model height from ground plane surface was varied from one and one-half wing span to landing touchdown while angle of attack varied from -4 to 20 degrees. Elevon effectiveness and alternate configuration geometries were tested to insure complete analysis of low aspect ratio wing aircraft in the presence of ground effect. Test Mach number was approxiamtely 0.067 with a corresponding dynamic pressure value of 6.5 psf.

NOMENCLATURE  
General

<u>SYMBOL</u>	<u>SADSAC SYMBOL</u>	<u>DEFINITION</u>
a		speed of sound; m/sec, ft/sec
C <sub>p</sub>	CP	pressure coefficient; $(p_1 - p_\infty)/q$
M	MACH	Mach number; V/a
p		pressure; N/m <sup>2</sup> , psf
q	Q(NSM) Q(PSF)	dynamic pressure; $1/2\rho V^2$ , N/m <sup>2</sup> , psf
RN/L	RN/L	unit Reynolds number; per m, per ft
V		velocity; m/sec, ft/sec
$\alpha$	ALPHA	angle of attack, degrees
$\beta$	BETA	angle of sideslip, degrees
$\psi$	PSI	angle of yaw, degrees
$\phi$	PHI	angle of roll, degrees
$\rho$		mass density; kg/m <sup>3</sup> , slugs/ft <sup>3</sup>

Reference & C.G. Definitions

A <sub>b</sub>		base area; m <sup>2</sup> , ft <sup>2</sup>
b	BREF	wing span or reference span; m, ft
c.g.		center of gravity
$\frac{l}{c}$ <sub>REF</sub>	LREF	reference length or wing mean aerodynamic chord; m, ft
S	SREF	wing area or reference area; m <sup>2</sup> , ft <sup>2</sup>
	MRP	moment reference point
	XMRP	moment reference point on X axis
	YMRP	moment reference point on Y axis
	ZMRP	moment reference point on Z axis

SUBSCRIPTS

b	base
l	local
s	static conditions
t	total conditions
$\infty$	free stream

NOMENCLATURE (Continued)

Body-Axis System

<u>SYMBOL</u>	<u>SADSAC SYMBOL</u>	<u>DEFINITION</u>
$C_N$	CN	normal-force coefficient; $\frac{\text{normal force}}{qS}$
$C_A$	CA	axial-force coefficient; $\frac{\text{axial force}}{qS}$
$C_Y$	CY	side-force coefficient; $\frac{\text{side force}}{qS}$
$C_{A_b}$	CAB	base-force coefficient; $\frac{\text{base force}}{qS}$ $-A_b(p_b - p_\infty)/qS$
$C_{A_f}$	CAF	forebody axial force coefficient, $C_A - C_{A_b}$
$C_m$	CLM	pitching-moment coefficient; $\frac{\text{pitching moment}}{qS/\text{REF}}$
$C_n$	CYN	yawing-moment coefficient; $\frac{\text{yawing moment}}{qS_b}$
$C_l$	CBL	rolling-moment coefficient; $\frac{\text{rolling moment}}{qS_b}$

Stability-Axis System

$C_L$	CL	lift coefficient; $\frac{\text{lift}}{qS}$
$C_D$	CD	drag coefficient; $\frac{\text{drag}}{qS}$
$C_{D_b}$	CDB	base-drag coefficient; $\frac{\text{base drag}}{qS}$
$C_{D_f}$	CDF	forebody drag coefficient; $C_D - C_{D_b}$
$C_Y$	CY	side-force coefficient; $\frac{\text{side force}}{qS}$
$C_m$	CLM	pitching-moment coefficient; $\frac{\text{pitching moment}}{qS/\text{REF}}$
$C_n$	CLN	yawing-moment coefficient; $\frac{\text{yawing moment}}{qS_b}$
$C_l$	CSL	rolling-moment coefficient; $\frac{\text{rolling moment}}{qS_b}$
L/D	L/D	lift-to-drag ratio; $C_L/C_D$

ADDITIONS TO NOMENCLATURE

FOR LTV/MSC TEST MAL

SYMBOL	SADSAC SYMBOL	
$h_{te}$	HTE	height of model trailing edge above ground plane surface, inches
$i_w$		wing incidence angle, degrees
$\delta_e$	ELEVON	elevon deflection angle, positive trailing edge down, degrees

## INTRODUCTION

Aircraft operating in the presence of the ground, i.e., within one wingspan, experience changes in their aerodynamic properties due to a phenomenon known as "ground effect." This effect generally tends to increase the lift associated with the wing while altering the vehicle pitching moment characteristics and control surface effectiveness.

Low aspect ratio wing aircraft (delta-wing) are particularly sensitive to ground effect due to the characteristic excessive vehicle attitudes associated with the landing and touchdown phases of flight. During landing, the vehicle must operate at large angles of attack to sustain lift values necessary for acceptable touchdown velocities which, in turn, requires the wing by the nature of its geometry to operate in close proximity to the ground.

Consistent agreement between predicted or measured, whether experimentally or from flight test results, values of ground effect with respect to low aspect ratio wings has not been achieved to date, and the interaction between the ground surface and flow about the wing as yet is not fully understood. No single theory or experimental technique for obtaining ground effect data for low aspect ratio wings is universally accepted.

The NASA-MSC shuttlecraft orbiter, because of a high cross-range requirement during entry, is configured as a low aspect ratio wing vehicle, and as a design concept, requires complete evaluation of its total flight envelope. With respect to the landing phase of this flight envelope, the NASA-MSC Orbiter 040A, representative of the low aspect ratio wing class of aircraft, was tested for evaluation of its longitudinal flight characteristics in the presence of ground effects.

## CONFIGURATIONS INVESTIGATED

The 0.05-scale model of NASA-MSC Orbiter 040A was built by Raines Engineering Company under the direction of Lockheed Missiles and Space Company (LMSC) as per MSC-LMSC contract requirements. The basic model consists of a wooden fuselage with machined aluminum wing spars and vertical fin. All wooden surfaces are covered with a layer of fiberglass coating to insure model structural integrity.

Enclosed within the wooden fuselage is a stainless steel, rectangular support block capable of housing a 4-inch or less diameter internal balance adapter. The nose section of the fuselage is also removable to accommodate nose-shape modifications.

Attachable to the fuselage support block are the wing spars which then support a wood-fiberglass shell formed to the external dimensions of the wing specifications. Both shell and wing spar when combined blend into the model fuselage to form the wing component of the baseline configuration.

Elevons for the wing are also machined aluminum and attachable to the wing spar by spanwise steel rods which join at the inboard end of the rod to movable preset elevon deflection brackets. The elevons are not presently designed to facilitate hinge moment testing.

The vertical fin (tail) and respective rudder are machined aluminum with the vertical tail secured to the upper fuselage by symmetrically located bolts on either side of the vertical tail root section flange. Rudder deflections are obtained by prebent metal plates attachable to the vertical tail and rudder surfaces.

In addition to the baseline model components, alternate components which include a double-delta wing geometry, twin vertical tails, and fuselage mounted canards have been constructed by the Texas A&M University Research and Instruments Shop. The double-delta wing will be composed of a machined aluminum wing spar covered with shaped wood to match the external airfoil section dimensions. Elevons for the double-delta are movable through a deflection range of  $-20^{\circ}$  to  $+10^{\circ}$ . Both the twin vertical tail and the canard are machined aluminum, rigidly attachable to the fuselage structure with no control surface or orientation capabilities. Five pressure orifices are located at the base of the model as shown in Figure 12 and were used to compute a base axial force coefficient. Additionally, one pressure orifice is located in the model base cavity region to sense sting-balance cavity pressure.

The model components tested and their symbology is given below:

<u>Symbol</u>	<u>Description</u>
B <sub>1</sub>	Baseline Fuselage
B <sub>3</sub>	Alternate Nose-Fuselage
W <sub>1</sub>	Baseline Delta-Wing
V <sub>1</sub>	Baseline Single Vertical Tail
G <sub>1</sub>	Baseline Landing Gear
N <sub>1</sub>	Alternate Configuration-Canards

<u>Symbol</u>	<u>Description</u>
W <sub>4</sub>	Alternate Configuration-Double-Delta Wing (not tested during this test)
W <sub>5</sub>	Alternate Configuration-Double-Delta Wing, W <sub>4</sub> , Without Glove
V <sub>11</sub>	Alternate Configuration - Twin Vertical Tails

Refer to Table I, Data Set Collations, for a summary of complete configurations investigated. Table II gives the dimensional data for each model component.

#### TEST FACILITY DESCRIPTION

The LTV Low Speed Wind Tunnel is a closed loop, continuous flow, wind tunnel with a dual test section arrangement. The upstream test section is 15' x 20' x 39' with a maximum velocity of 75 fps which yields a dynamic pressure ( $q$ ) of approximately 6.5 psf. Models are sting mounted in this section utilizing internal balances.

The downstream section is a 7' x 10' x 16' section with a maximum velocity of approximately 320 fps ( $q = 120$  psf). This section utilizes an external balance arrangement requiring the models to be strut mounted.

This test utilized the upstream test section with the model sting mounted and in proximity to a ground belt mounted in the floor.

Model angle of attack was set by null sensing electrolytic bubbles mounted internally within the fuselage keel. The bubbles are mounted on both sides of a wiring plate in such an orientation as to correspond to a predetermined angle of attack. The plate is then secured to the internal fuselage keel by bolts along the connecting flange at the base of the plate. Direct analog measurement of the

model angle of attack by this method eliminates the necessity of sting bending corrections as associated with geometric angle of attack calibrations.

The Moving Ground Belt System is shown schematically in Figure 13 and consists of an endless belt, bed plate, rollers, drive unit, boundary layer removal fairing and duct. The belt is 12 feet wide and 21 feet 9 inches overall in length. It is endless, 1/8-inch thick, and weighs approximately 9 ounces per square foot. The ultimate strength of the material is approximately 170 pounds per inch of width. The belt presents a flat testing surface 10 feet long and 12 feet wide which is remotely controllable up to speeds of 100 feet per second.

The bed plate is the basic supporting structure of the Moving Ground Belt System. It forms the flat surface for the belt to move over and contains the suction chambers and pressure manifolds to insure flat and smooth movement of the belt. The bed plate contains 20 equal size suction chambers designed for a pressure differential of 8 pounds per square inch. The upper plate of each chamber has 1/8-inch holes on 4-inch centers, evenly distributed over the entire surface. Each chamber has a 1-inch threaded pipe extending to the side for connection to a suction manifold.

In addition to the suction holes, each chamber contains a 1/2-inch pipe manifold and three evenly spaced 1/16-inch diameter pressure outlets in the upper plate. The pressure system is designed for 1,000 pounds per square inch.

The rollers are made of aluminum alloy with stainless steel end caps and shafts. The rollers are 7-1/2 inches in diameter with a 12 feet-3 inch face length. The rollers are attached to the bed plate by means of the bearing support assemblies. Each support assembly has one fixed bearing and one adjustable bearing. The adjustable bearings are on the front of the Moving Ground Belt System and allow the roller to be moved to adjust the tension on the belt.

The drive unit consists of a 30 horsepower electric motor, an Eddy current speed control clutch, step-up timing belt drive, and roller shaft. The magnetic drive which includes the motor, clutch and controller, is a standard Louis Allis Company unit.

Boundary layer control is provided by suction through a variable gap slot that is 9-3/4 inches forward of moving belt leading edge. The suction is provided by an 18-inch diameter duct that opens into the 7- by 10-foot test section diffuser which is essentially at atmospheric pressure while the 15- by 20-foot test section runs at a positive static pressure. The effect of boundary layer suction for a Moving Ground Belt Survey is presented in figure 14 and was obtained from reference 2.

#### DATA REDUCTION

Standard data reduction procedures were used to reduce the balance measured aerodynamic loads to coefficient form. The reference values utilized and the point of reference for the moments (aerodynamic reference position) are given below.

$$S = S_{REF} = \text{wing planform area} = 7.8875 \text{ ft}^2$$

$$l_{REF} = L_{REF} = \bar{c} = \text{wing mean aerodynamic chord} = 2.54 \text{ ft.}$$

$$b = B_{REF} = \text{wing theoretical span} = 3.675 \text{ ft.}$$

$$A_b = \text{base area, wing off} = 0.743 \text{ ft}^2$$

Moment reference point (see Figure 2)

$$\text{Fus. Sta.} = X_{MRP} = 75.75 \text{ inches}$$

$$\text{Body Line} = Y_{MRP} = 0.0 \text{ inches}$$

$$\text{Water Line} = Z_{MRP} = 14.11 \text{ inches}$$

The tunnel dynamic pressure was corrected for wake blockage effects to maintain a constant free-stream dynamic pressure value. While the intended free-stream dynamic pressure was approximately 6.4 psf, Figure 15 presents the actual dynamic pressure as a function of height above the ground belt. For data reduction purposes the dynamic pressure corresponding to the calculated height of the vehicle wing  $\bar{c}/4$  location was used for each combination of  $h_{te}/b$  and  $\alpha$  tested. This height was calculated by:

$$h_{\bar{c}/4} = h_{te} + 22.86 \sin(i_w + \alpha)$$

The data were also corrected for tunnel flow misalignment and tunnel wall interference. Flow calibration constants for the 15' x 20' test section as listed in reference 1 are as follows:

Dynamic Pressure Variation. . . . . +1.5%

Flow Angle Variation (Relative) . . . . .  $\pm 0.25^\circ$

Static Pressure Gradient. . . . . 0

Turbulence Factor (Average) . . . . . 1.40

Boundary Layer Thickness (Entrance) . . . 3"

Boundary Layer Thickness (Exit) . . . . 5"

The base pressure values from the pressure orifices located in the base of the model were averaged and reduced to a base axial force coefficient referenced to standard dynamic pressure and area constants. Included in this base axial force coefficient was also the balance sting cavity term which was the cavity pressure times the cavity area over which it acted reduced to standard reference terms. The base axial force coefficient is given in the tabulated data but was not applied to the total axial force coefficient. Correction of the total axial force coefficient with respect to base axial force data is left to the discretion of the data user.

## **REFERENCES**

1. "Low Speed Wind Tunnel - Facility Handbook," Vought Aeronautics Division, LTV Aerospace Corporation, Dallas, Texas; Pub. Number AER-EOR-12995-B dated May 1968.
2. "LTV Moving Ground Belt Brochure," Vought Aeronautics Division, LTV Aerospace Corporation, Dallas, Texas; Unpublished.
3. "Aerothermodynamic and Aerodynamic Wind Tunnel Data," Lockheed Missiles and Space Company; Document No. LMSC-D153936, ACS-231 dated January 11, 1972.
4. "NASA-MSC Test Series S-081 Operating Report," NASA-MSC Memorandum EX24/7208-171C dated 28 August 1972.

TEST 5-081/MA1 DATA SET COLLATION SHEET

PRETEST  
 POSTTEST

ANGLE OF ATTACK

(OR ALTERNATE INDEPENDENT VARIABLE)

DATA SET IDENTIFIER	CONFIGURATION	SCHED.	PARAMETERS / VALUES																
			$\beta$	$S_{el}$	$S_{er}$	$S_{e}$	-4	-2	2	4	6	8	10	12	14	16	18	20	
RDD001	B, W, V, G <sub>1</sub>	A	0	0	0	0	5	3	29	2	6	7	8	9	10	11	12	13	14
02		B	0	0	0	0	28	27	26	24	25	19	20	21	23	15	16	17	18
03		A	0	-20	-20	-20	31	32	33	37	36	38	39	40	41	42	43	44	45
04		A	0	-10	-10	-10	46	47	48	49	50	51	52	53	54	55			
05		A	0	-2	-2	-2	57	58	56	59	60	61	62	63	65				
06		A	0	-4	-4	-4	67	68	69	70	71	72	73	74	75				
07		A	0	-6	-6	-6	77	78	79	80	81	82	83	84	85				
08	B, W, V, G, N <sub>1</sub>	A	0	0	0	0	88	89	90	91	92	93	94	95	96	97			
09	B <sub>3</sub> W <sub>5</sub> V <sub>11</sub> G <sub>1</sub> N <sub>1</sub>	A	0	0	0	0	99	100	101	102	103	104	105	106	107	108			
10	B <sub>3</sub> W <sub>5</sub> V <sub>11</sub> G <sub>1</sub>	A	0	0	0	0	110	111	112	113	114	115	116	117	118	119			
11	B <sub>3</sub> W <sub>5</sub> V <sub>11</sub> G <sub>1</sub>	B	0	0	0	0													
12																			
13																			

C.L	CD	CN	CA	ID(PSF), CY	CLL	CYN	CAB	CLM	ALPH_A	HTE/B	IDPVAR(1)	IDPVAR(2)	NDV
1	7	13	19	25	31	37	43	49	55	61	67	75	76

COEFFICIENTS:  
 $\alpha$  or  $\beta$   
SCHEDULES

$A = B = 0, .05, .10, .15, .20, .25, .30, .35, .40, .50, .60,$   
 $7, -8, -9, 1.0, 1.5$

$A = \text{Ground Belt Moving}, B = \text{Ground Belt Stationary}$

**TABLE II. MODEL COMPONENT DIMENSIONAL DATA**

MODEL COMPONENT: BODY - B1

GENERAL DESCRIPTION: \_\_\_\_\_

DRAWING NUMBER:

MSC 040A

DIMENSIONS:

	<u>FULL-SCALE</u>	<u>MODEL SCALE</u>
Length	<u>1,315.0</u>	<u>65.75</u>
Max. Width	<u>204.0</u>	<u>10.20</u>
Max. Depth	<u>238.0</u>	<u>11.90</u>
Fineness Ratio	<u>-</u>	<u>-</u>
Area		
Max. Cross-Sectional	<u>44,086.551</u>	<u>110.216</u>
Planform	<u>-</u>	<u>-</u>
Wetted	<u>-</u>	<u>-</u>
Base (Projected)	<u>42,824.5</u>	<u>107.06</u>

**TABLE II. MODEL COMPONENT DIMENSIONAL DATA (Continued)**

MODEL COMPONENT: WING - W1

GENERAL DESCRIPTION: \_\_\_\_\_

DRAWING NUMBER: MSC 040A

<u>DIMENSIONS:</u>	<u>FULL-SCALE</u> <u>INCHES</u>	<u>MODEL SCALE</u>
<u>TOTAL DATA</u>		
Area		
Planform	<u>454,363.012</u>	<u>1,135,908</u>
Wetted	<u>-</u>	<u>-</u>
Span (equivalent)	<u>882.0</u>	<u>44.10</u>
Aspect Ratio	<u>1.71212</u>	<u>1.71212</u>
Rate of Taper	<u>-</u>	<u>-</u>
Taper Ratio	<u>0.14860</u>	<u>0.14860</u>
Dihedral Angle, degrees	<u>7°</u>	<u>7°</u>
Incidence Angle, degrees	<u>1.5°</u>	<u>1.5°</u>
Aerodynamic Twist, degrees	<u>0°</u>	<u>0°</u>
Toe-In Angle	<u>-</u>	<u>-</u>
Cant Angle	<u>-</u>	<u>-</u>
Sweep Back Angles, degrees		
Leading Edge	<u>60°</u>	<u>60°</u>
Trailing Edge	<u>0°</u>	<u>0°</u>
0.25 Element Line, 0.5 Element Line	<u>52.42°, 40.9°</u>	<u>52.42°, 40.9°</u>
Chords:		
Root (Wing Sta. 0.0)	<u>897.0</u>	<u>44.85</u>
Tip, (equivalent)	<u>133.3</u>	<u>6.665</u>
MAC	<u>693.5</u>	<u>32.675</u>
Fus. Sta. of .25 MAC	<u>1,057.928</u>	<u>52.835</u>
W.P. of .25 MAC	<u>-</u>	<u>-</u>
B.L. of .25 MAC	<u>166.0</u>	<u>8.30</u>
Airfoil Section		
Root	<u>NACA 0008-64</u>	<u>0008-64</u>
Tip	<u>NACA 0008-64</u>	<u>0008-64</u>
<u>EXPOSED DATA</u>		
Area	<u>289,440.743</u>	<u>723.602</u>
Span, (equivalent)	<u>672.0</u>	<u>33.90</u>
Aspect Ratio	<u>1.58810</u>	<u>1.58811</u>
Taper Ratio	<u>0.18501</u>	<u>0.18501</u>
Chords		
Root	<u>720.50</u>	<u>36.025</u>
Tip	<u>133.3</u>	<u>6.165</u>
MAC	<u>494.201</u>	<u>24.710</u>
Fus. Sta. of .25 MAC	<u>1,146.335</u>	<u>57.217</u>
W.P. of .25 MAC	<u>-</u>	<u>-</u>
B.L. of .25 MAC	<u>232.640</u>	<u>11.532</u>

**TABLE II. MODEL COMPONENT DIMENSIONAL DATA (Continued)**

MODEL COMPONENT: W1 - Elevon

GENERAL DESCRIPTION: Elevon

NOTE: The following dimensions are representative of each of  
the two elevons.

DRAWING NUMBER: MSC 040A

<u>DIMENSIONS:</u>	<u>FULL-SCALE</u> <u>INCHES</u>	<u>MODEL SCALE</u>
Area.	<u>32,784.0</u>	<u>.81.960</u>
Span (equivalent)	<u>278.0</u>	<u>.13.90</u>
Inb'd equivalent chord	<u>118.0</u>	<u>.5.90</u>
Outb'd equivalent chord	<u>118.0</u>	<u>.5.90</u>
Ratio movable surface chord/total surface chord		
At Inb'd equiv. chord	<u>.166</u>	<u>.166</u>
At Outb'd equiv. chord	<u>.516</u>	<u>.516</u>
Sweep Back Angles, degrees		
Leading Edge	<u>-</u>	<u>-</u>
Tailing Edge	<u>0°</u>	<u>0°</u>
Hingeline	<u>0°</u>	<u>0°</u>
Area Moment (Normal to hinge line)	<u>-</u>	<u>-</u>

**TABLE II. MODEL COMPONENT DIMENSIONAL DATA (Continued)**

MODEL COMPONENT: WING - W<sub>4</sub>

GENERAL DESCRIPTION: \_\_\_\_\_

DRAWING NUMBER: \_\_\_\_\_

<u>DIMENSIONS:</u>	<u>BASIC (NO GLOVE)</u> <u>IN., IN.<sup>2</sup></u>	<u>DOUBLE-DELTA</u> <u>IN., IN.<sup>2</sup></u>
<u>TOTAL DATA</u>		
Area:		
Planform	<u>492,480.0</u>	<u>663,490</u>
Wetted	<u>-</u>	<u>-</u>
Span (Equivalent)	<u>1,115.8</u>	<u>1,115.8</u>
Aspect Ratio	<u>2.525</u>	<u>1.874</u>
Rate of Taper	<u>-</u>	<u>-</u>
Taper Ratio	<u>0.2</u>	<u>0.10109</u>
Dihedral Angle, degrees	<u>7.0</u>	<u>7.0</u>
Incidence Angle, degrees	<u>1.5</u>	<u>1.5</u>
Aerodynamic Twist, degrees	<u>0</u>	<u>0</u>
Toe-In Angle	<u>0</u>	<u>0</u>
Cant Angle	<u>0</u>	<u>0</u>
Sweep Back Angles, degrees:		
Leading Edge	<u>35</u>	<u>75/35</u>
Trailing Edge	<u>-19.591</u>	<u>-19.591</u>
Chords:		
Root (Wing Sta. 0.0)	<u>736.1</u>	<u>1,456.1</u>
Tip (Equivalent)	<u>146.9</u>	<u>146.9</u>
MAC	<u>507.1</u>	<u>836.4</u>
Fus. Sta. of .25 MAC	<u>993.4</u>	<u>769.5</u>
B.L. of .25 MAC	<u>216.8</u>	<u>181.4</u>
Apex Sta.	<u>714.8</u>	<u>-5.3</u>
Break	<u>N/A</u>	<u>484.3</u>
B.L. of Break	<u>N/A</u>	<u>238.3</u>
Airfoil Section:		
Root	<u>NACA 0008-64</u>	<u>NACA 0007-64</u>
Tip	<u>0008-64</u>	<u>0008-64</u>
Break	<u>N/A</u>	<u>0008-64</u>
<u>EXPOSED DATA</u>		
Area	<u>353,324.4</u>	<u>408,958</u>
Span (Equivalent)	<u>911.8</u>	<u>911.8</u>
Aspect Ratio	<u>2.349</u>	<u>2.030</u>
Taper Ratio	<u>0.234</u>	<u>0.1417</u>
Chords:		
Root	<u>626.4</u>	<u>1,031.3</u>
Tip	<u>146.9</u>	<u>146.9</u>
MAC	<u>437.6</u>	<u>573.2</u>
Fus. Sta. of .25 MAC	<u>1,022.1</u>	<u>926.8</u>
W.P. of .25 MAC	<u>-</u>	<u>-</u>
B.L. of .25 MAC	<u>282.7</u>	<u>284.2</u>

TABLE II. MODEL COMPONENT DIMENSIONAL DATA (Continued)

MODEL COMPONENT:  $W_4$  - ELEVON

GENERAL DESCRIPTION: NOTE: The following dimensions are representative of each of the two elevons.

DRAWING NUMBER: \_\_\_\_\_

<u>DIMENSIONS:</u>	<u>FULL-SCALE (INCHES)</u>	<u>MODEL SCALE</u>
Area	_____	_____
Span (equivalent) (Semi-span)	<u>404.5</u>	<u>20.22</u>
* Inb'd equivalent chord	<u>231.2</u>	<u>11.56</u>
Outb'd equivalent chord	<u>71.88</u>	<u>3.59</u>
Ratio Movable Surface Chord/Total Surface Chord	_____	_____
At Inb'd equiv. chord } With	.224	.224
At Outb'd equiv. chord } Glove	.374	.374
Sweep Back Angles, degrees	_____	_____
Leading Edge	<u><math>2^\circ</math></u>	<u><math>2^\circ</math></u>
Tailing Edge	<u><math>19-1/2^\circ</math></u>	<u><math>19-1/2^\circ</math></u> (Forward)
Hingeline	<u><math>0^\circ</math></u>	<u><math>0^\circ</math></u>
Area Moment (Normal to hinge line)	_____	_____

\* Line Parallel to Fuselage Centerline from In-board Wing Leading Edge at Fuselage Surface Junction to Projection of Wing Trailing Edge

**TABLE II. MODEL COMPONENT DIMENSIONAL DATA (Continued)**

MODEL COMPONENT: VERTICAL TAIL - V1

GENERAL DESCRIPTION: Centerline Stabilizer

DRAWING NUMBER: MSC 040A

<u>DIMENSIONS:</u>	<u>FULL-SCALE</u>	<u>MODEL SCALE</u>
<u>TOTAL DATA</u>		
Area		
Planform		
Wetted		
Span (equivalent)		
Aspect Ratio		
Rate of Taper		
Taper Ratio		
Diehedral Angle, degrees		
Incidence Angle, degrees		
Aerodynamic Twist, degrees		
Toe-In Angle		
Cant Angle		
Sweep Back Angles, degrees		
Leading Edge	45°	45°
Trailing Edge	15°	15°
0.25 Element Line, 0.5 Element Line	39.23°, 32.35°	39.23°, 32.35°
Chords:		
Root (Wing Sta. 0.0)		
Tip, (equivalent)		
MAC		
Fus. Sta. of .25 MAC		
W.P. of .25 MAC		
B.L. of .25 MAC		
Airfoil Section		
Root	NACA 0012-64	0012-64
Tip	NACA 0012-64	0012-64
<u>EXPOSED DATA</u>		
Area	51,030.051	127,575
Span, (equivalent)	270.0	13.50
Aspect Ratio	1.42857	1.42857
Taper Ratio	0.31250	0.31250
Chords		
Root	288.0	14.40
Tip	90.0	4.50
MAC	206.225	10.314
Fus. Sta. of .25 MAC	1,428.0	71.40
W.P. of .25 MAC	111.026	5.553
B.L. of .25 MAC	0	0

TABLE II. MODEL COMPONENT DIMENSIONAL DATA (Continued)

MODEL COMPONENT: VI - RUDDER

GENERAL DESCRIPTION:

DRAWING NUMBER: MSC 040A

<u>DIMENSIONS:</u>	<u>FULL-SCALE</u> <u>INCHES</u>	<u>MODEL SCALE</u>
Area	<u>19,300.4</u>	<u>48.251</u>
Span (equivalent)	<u>244.0</u>	<u>12.20</u>
Inb'd equivalent chord	<u>114.9</u>	<u>5.745</u>
Outb'd equivalent chord	<u>43.3</u>	<u>2.165</u>
Ratio Elevator chord/horizontal tail chord		
At Inb'd equiv. chord	<u>0.4</u>	<u>0.4</u>
At Outb'd equiv. chord	<u>0.4</u>	<u>0.4</u>
Sweep Back Angles, degrees		
Leading Edge	<u>-</u>	<u>-</u>
Tailing Edge	<u>15°</u>	<u>15°</u>
Hingeline	<u>33°</u>	<u>33°</u>
Area Moment (Normal to hinge line)	<u>-</u>	<u>-</u>

TABLE II. MODEL COMPONENT DIMENSIONAL DATA (Continued)

MODEL COMPONENT: Vertical Tail - V<sub>11</sub>

GENERAL DESCRIPTION: NOTE: The following dimensions are representative of each of the twin vertail tails.

DRAWING NUMBER:

<u>DIMENSIONS:</u>	<u>FULL-SCALE</u> <u>(INCHES)</u>	<u>MODEL SCALE</u> <u>(INCHES)</u>
<u>TOTAL DATA</u>		
Area		
Planform		
Wetted		
Span (equivalent)		
Aspect Ratio		
Rate of Taper		
Taper Ratio		
Diehedral Angle, degrees		
Incidence Angle, degrees		
Aerodynamic Twist, degrees		
Toe-In Angle	0°	0°
Cant Angle	30°	30°
Sweep Back Angles, degrees		
Leading Edge	45°	45°
Trailing Edge	20.5°	20.5°
0.25 Element Line		
Chords:		
Root (Wing Sta. 0.0)		
Tip, (equivalent)		
MAC		
Fus. Sta. of .25 MAC		
W.P. of .25 MAC		
B.L. of .25 MAC		
Airfoil Section		
Root	60/40	5° Wedge
Tip		
<u>EXPOSED DATA</u>		
Area	37,200	93
Span, (equivalent)	240	12
Aspect Ratio	1.548	1.548
Taper Ratio	9.348	0.348
Chords		
Root	230	11.5
Tip	80	4.0
MAC		
Fus. Sta. of .25 MAC		
W.P. of .25 MAC		
B.L. of .25 MAC		

TABLE II. MODEL COMPONENT DIMENSIONAL DATA (Concluded)

MODEL COMPONENT: CANARD - N<sub>1</sub>

GENERAL DESCRIPTION: NOTE: The following dimensions are representative of each of the two canards.

**DRAWING NUMBER:**

**DIMENSIONS:**

	FULL-SCALE (INCHES)	MODEL SCALE
<u>TOTAL DATA - N/A</u>		
Area		
Planform	N/A	N/A
Wetted		
Span (equivalent)		
Aspect Ratio		
Rate of Taper		
Taper Ratio		
Diehedral Angle, degrees		
Incidence Angle, degrees		
Aerodynamic Twist, degrees		
Toe-In Angle		
Cant Angle		
Sweep Back Angles, degrees		
Leading Edge		
Trailing Edge		
0.25 Element Line		
Chords:		
Root (Wing Sta. 0.0)		
Tip, (equivalent)		
MAC		
Fus. Sta. of .25 MAC		
W.P. of .25 MAC		
B.L. of .25 MAC		
Airfoil Section		
Root		
Tip		
<u>EXPOSED DATA</u>		
Area (Single Panel)	14.364	35.21
Span, (equivalent)	119.0	5.95
Aspect Ratio	1.972	1.972
Taper Ratio	.316	.316
Chords		
Root	183.4	9.17
Tip	58.0	2.90
MAC		
Fus. Sta. of .25 MAC		
W.P. of .25 MAC	400.0	20.0
B.L. of .25 MAC		

TABLE III.  
TEST CONDITIONS

BALANCE UTILIZED: LTV VT8-6 4 INCH INTERNAL STRAIN GAUGE

CAPACITY:		CALIBRATED LOADS		ACCURACY:	COEFFICIENT TOLERANCE:	
MODEL	BALANCE	NF	1000 LB	250	0.16%	± .0079
NF	SF	SF	300 LB	125	0.40%	± .0099
AF	AF	AF	320 LB	250	0.15%	± .0074
YM	PM	PM	5000 IN-LB	1500	0.18%	± .0018
PM	YM	YM	2500 IN-LB	750	0.37%	± .0012
RM	RM	RM	3000 IN-LB	300	0.30%	± .0006

BASED ON  
 $g = 6.4 \text{ PSF}$

COMMENTS: THE ACCURACY VALUES QUOTED WERE TAKEN FROM THE REDUCED CALIBRATION DATA. THEY ARE IN PERCENT OF CALIBRATED LOADS APPLIED.

TABLE IV. INDEX OF MODEL FIGURES

Figure	Title	Page
1	$B_1 W_1 V_1 G_1$ Installed in LTV Low Speed Wind Tunnel ( $15^{\frac{1}{2}}$ x 20' Test Section)	27
2	Orbiter Configuration - $B_1 W_1 V_1$	28
3	Total Installation Assembly	29
4	040A Basic Nose - $B_1$	30
5	040A Alternate Nose - $B_3$	31
6	Basic Wing and Elevon - $W_1$	32
7	Alternate Wing/Glove - $W_4$	33
8	Basic Fin with Rudder - $V_1$	34
9	Alternate Vertical Fin - $V_{11}$	35
10	Canard, $N_1$	36
11	Landing Gear, $G_1$	37
12	Base Pressure Locations	38
13	Side View, Moving Ground Belt Installation	39
14	Moving Ground Belt Survey - Effect of Boundary Layer Suction	40
15	Test Section Dynamic Pressure as a Function of Height above the Tunnel Floor (Ground Belt)	41
16	Location of Internal Balance Center, Model Reduction Position and Aerodynamic Reference Position; Moment Transfer Diagram	42
17	Axis System	43

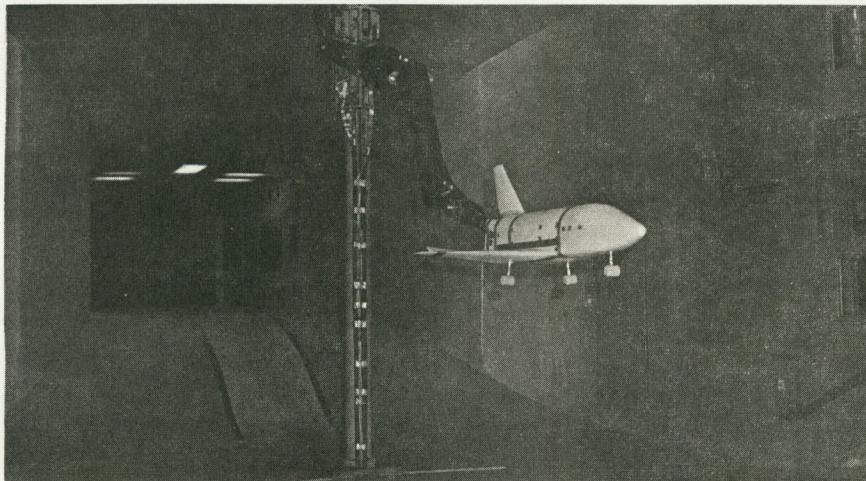
TABLE V. INDEX OF DATA FIGURES

TITLE	PLOTTED * COEFFICIENTS SCHEDULE	CONDITIONS VARYING	PAGES
Aerodynamic Characteristics of BlW1V1G1 in Presence of Moving Ground Belt (Delta Elevon = 0)	A	Angle of Attack	1-9
Aerodynamic Characteristics of BlW1V1G1 in Presence of Fixed Ground Belt, L. E. Suction On (Delta Elevon = 0)	A	Angle of Attack	10-18
Aerodynamic Characteristics of BlW1V1G1 in Presence of Moving Ground Belt (Delta Elevon = -2)	A	Angle of Attack	19-24
Aerodynamic Characteristics of BlW1V1G1 in Presence of Moving Ground Belt (Delta Elevon = -4)	A	Angle of Attack	25-30
Aerodynamic Characteristics of BlW1V1G1 in Presence of Moving Ground Belt (Delta Elevon = -6)	A	Angle of Attack	31-36
Aerodynamic Characteristics of BlW1V1G1 in Presence of Moving Ground Belt (Delta Elevon = -10)	A	Angle of Attack	37-42
Aerodynamic Characteristics of BlW1V1G1 in Presence of Moving Ground Belt (Delta Elevon = -20)	A	Angle of Attack	43-51
Aerodynamic Characteristics of BlW1V1G1N1 in Presence of Moving Ground Belt (Delta Elevon = 0)	A	Angle of Attack	52-57
Aerodynamic Characteristics of BlW5V1G1N1 in Presence of Moving Ground Belt (Delta Elevon = 0)	A	Angle of Attack	58-63
Aerodynamic Characteristics of BlW5V1G1 in Presence of Moving Ground Belt (Delta Elevon = 0)	A	Angle of Attack	64-69
Comparison of Data for Moving Belt w/Suction and Fixed Belt w/o Suction	A	Tunnel Conditions	70-72

\* PLOTTED COEFFICIENTS SCHEDULE

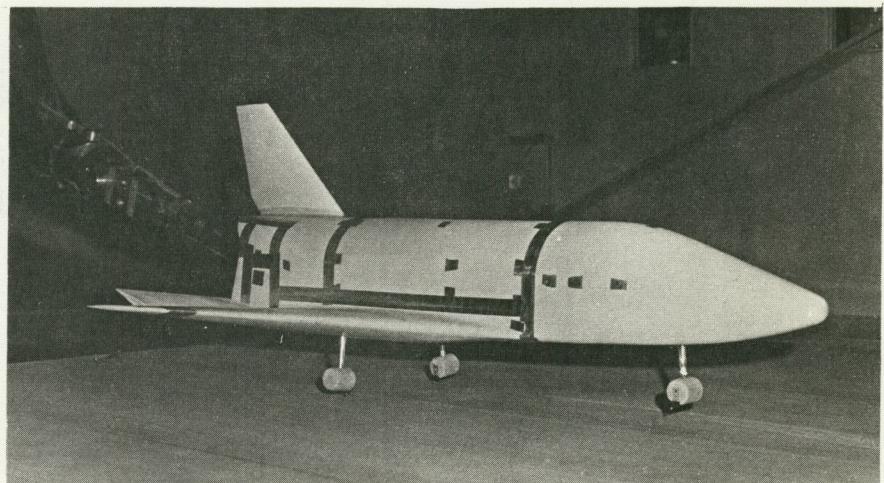
A) CL, C1M, CD versus HTE/B

**MODEL FIGURES**



a) Front View,  $\alpha = 0$

- b) Side View,  $\alpha = 0$   
Note touch switches  
on each landing gear  
wheel



c) Rear View,  $\alpha = 0^\circ$   
Trailing wire cali-  
brated to determine  
heights above ground  
belt.

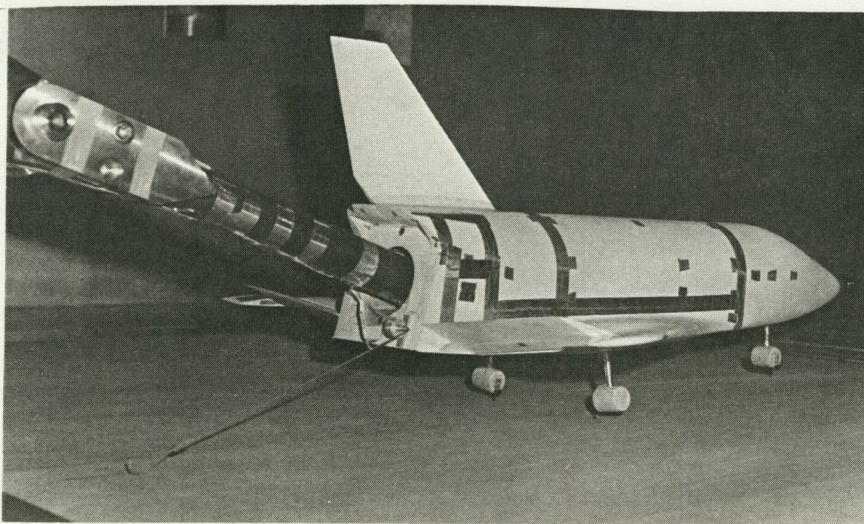


FIGURE 1. B<sub>1</sub>W<sub>1</sub>V<sub>1</sub>G<sub>1</sub> INSTALLED IN LTV LOW SPEED WIND TUNNEL  
(15' x 20' TEST SECTION)

ALL LINEAR DIMENSIONS  
INCHES FULL SCALE

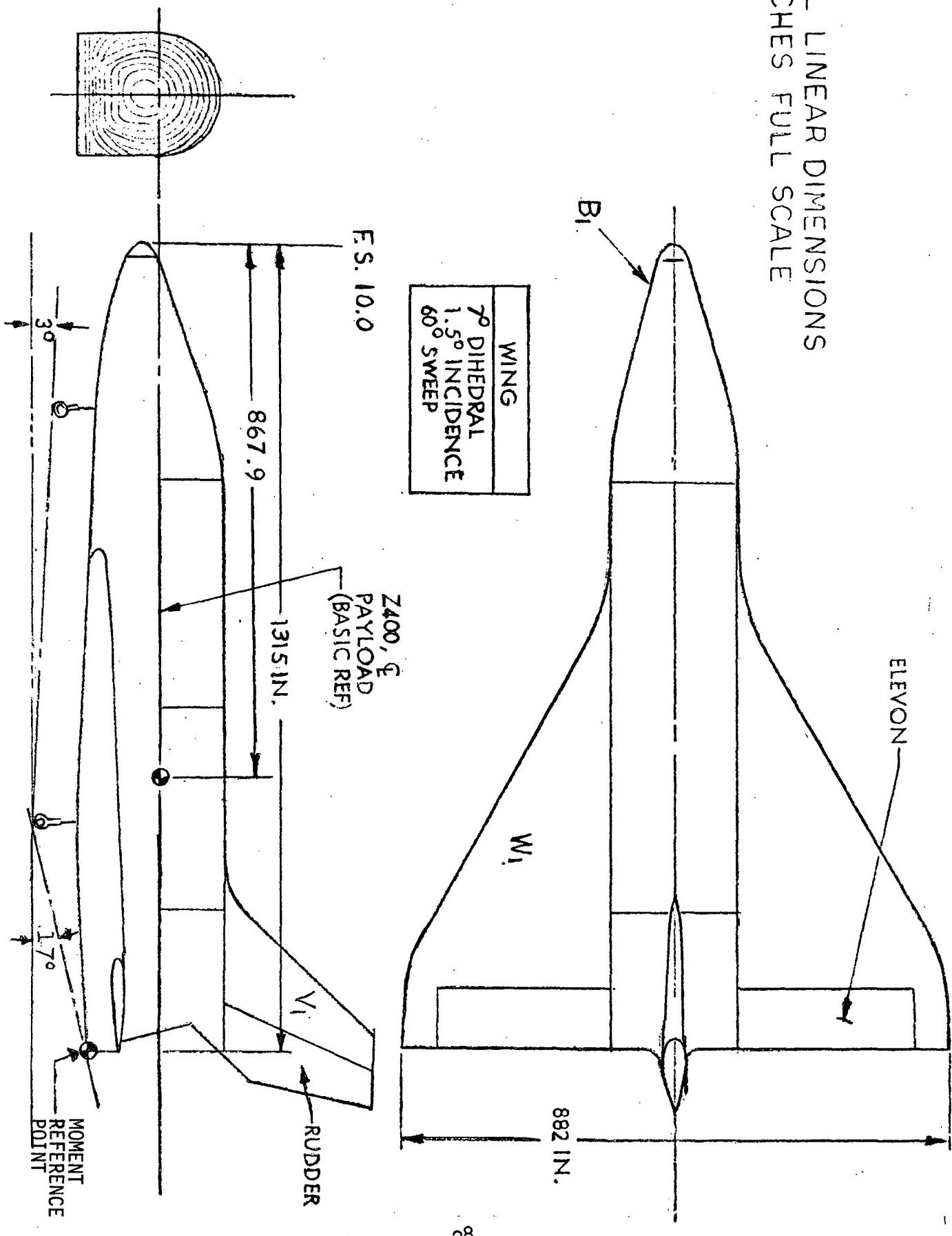


FIGURE 2 - OREITER CONFIGURATION - B<sub>1</sub>W<sub>1</sub>V<sub>1</sub>

LOCKHEED SS-34 MODEL  
INSTALLATION IN 15 X 20 FT

—SS-34 MODEL

— 75-003398

75-002500-VB4

75-002509

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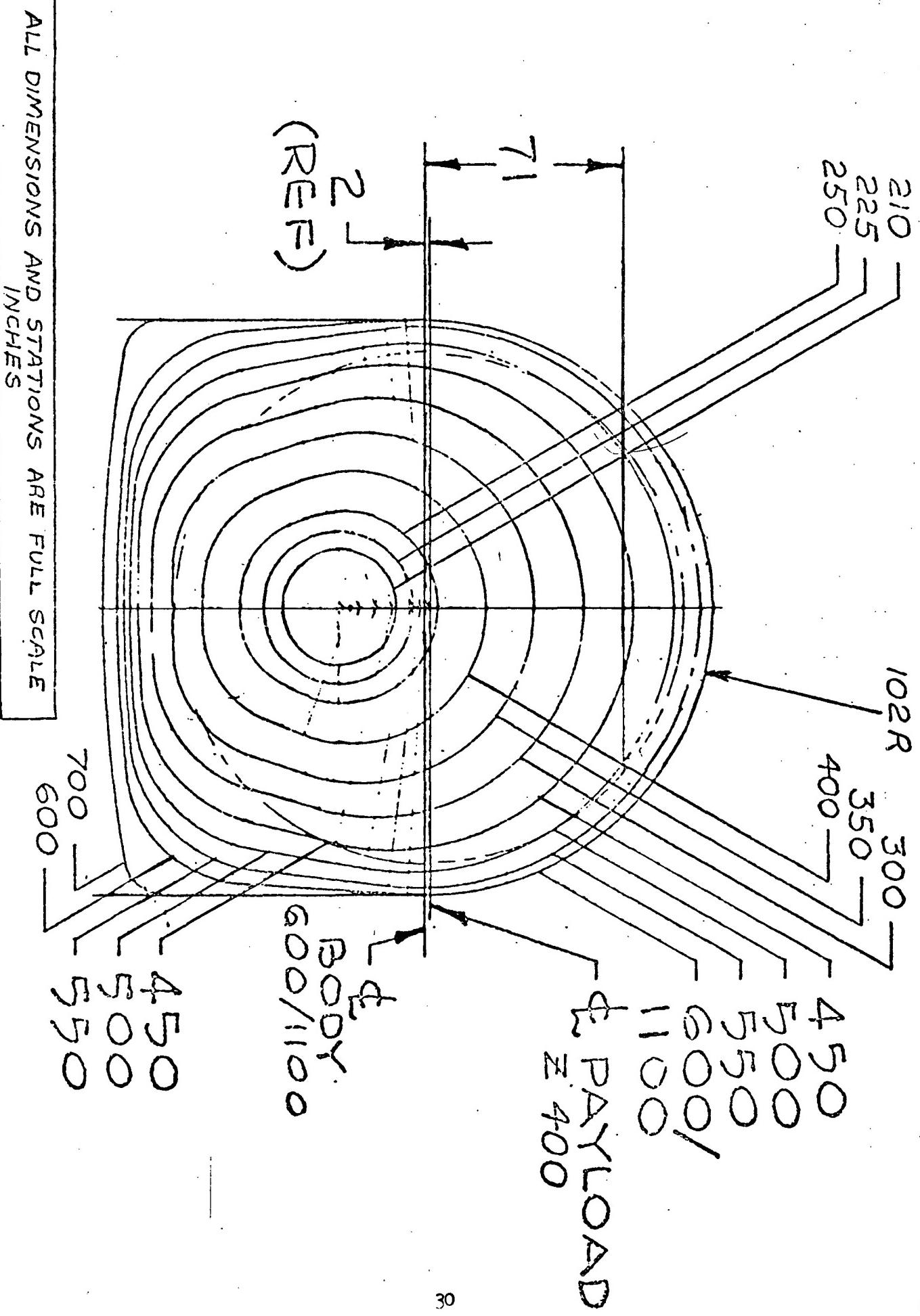
10

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29

**FIGURE 3 - TOTAL INSTALLATION ASSEMBLY**



ALTERNATE NOSE 2. ~B3

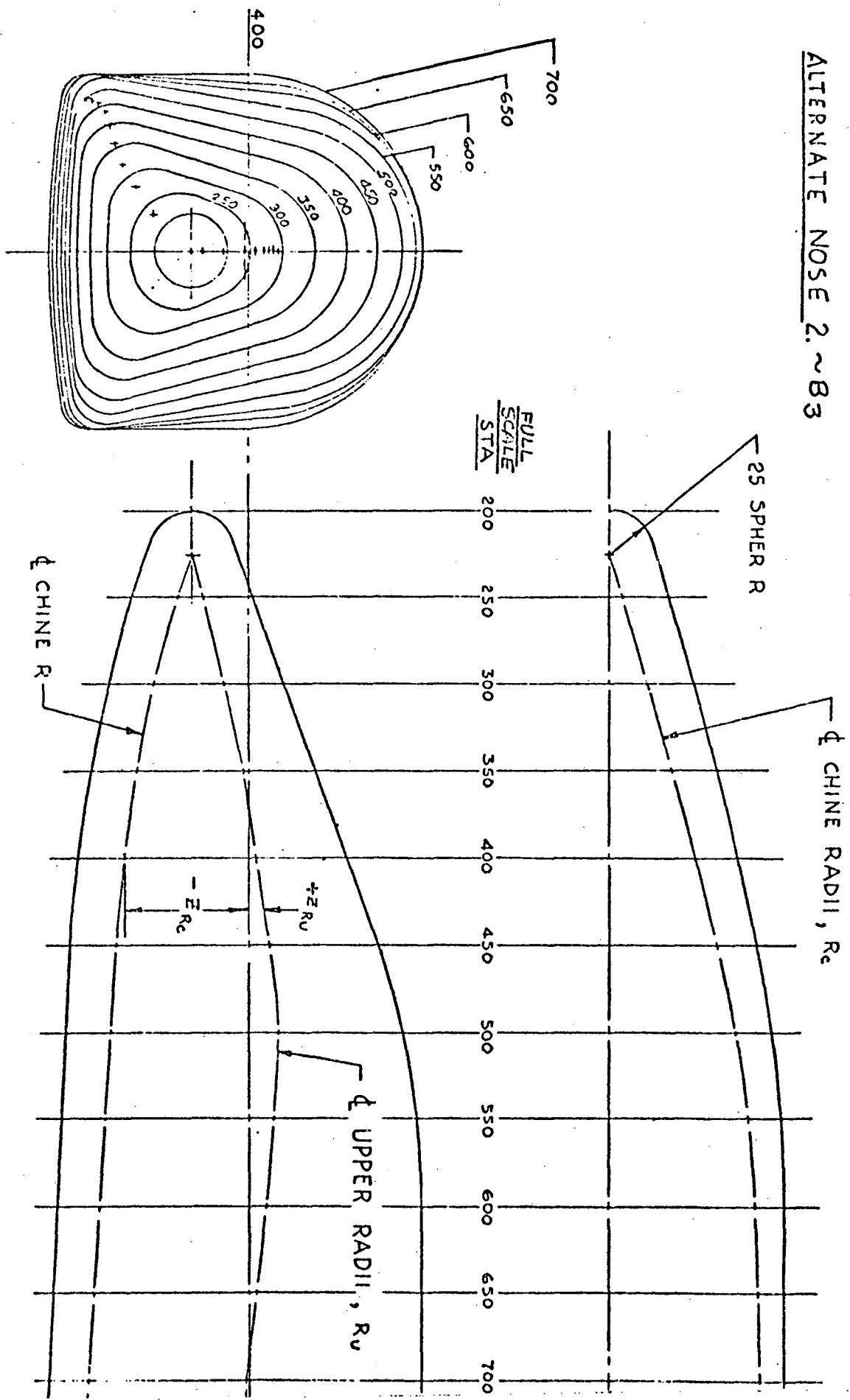


FIGURE 5. - O4OA ALTERNATE NOSE. - B<sub>3</sub>

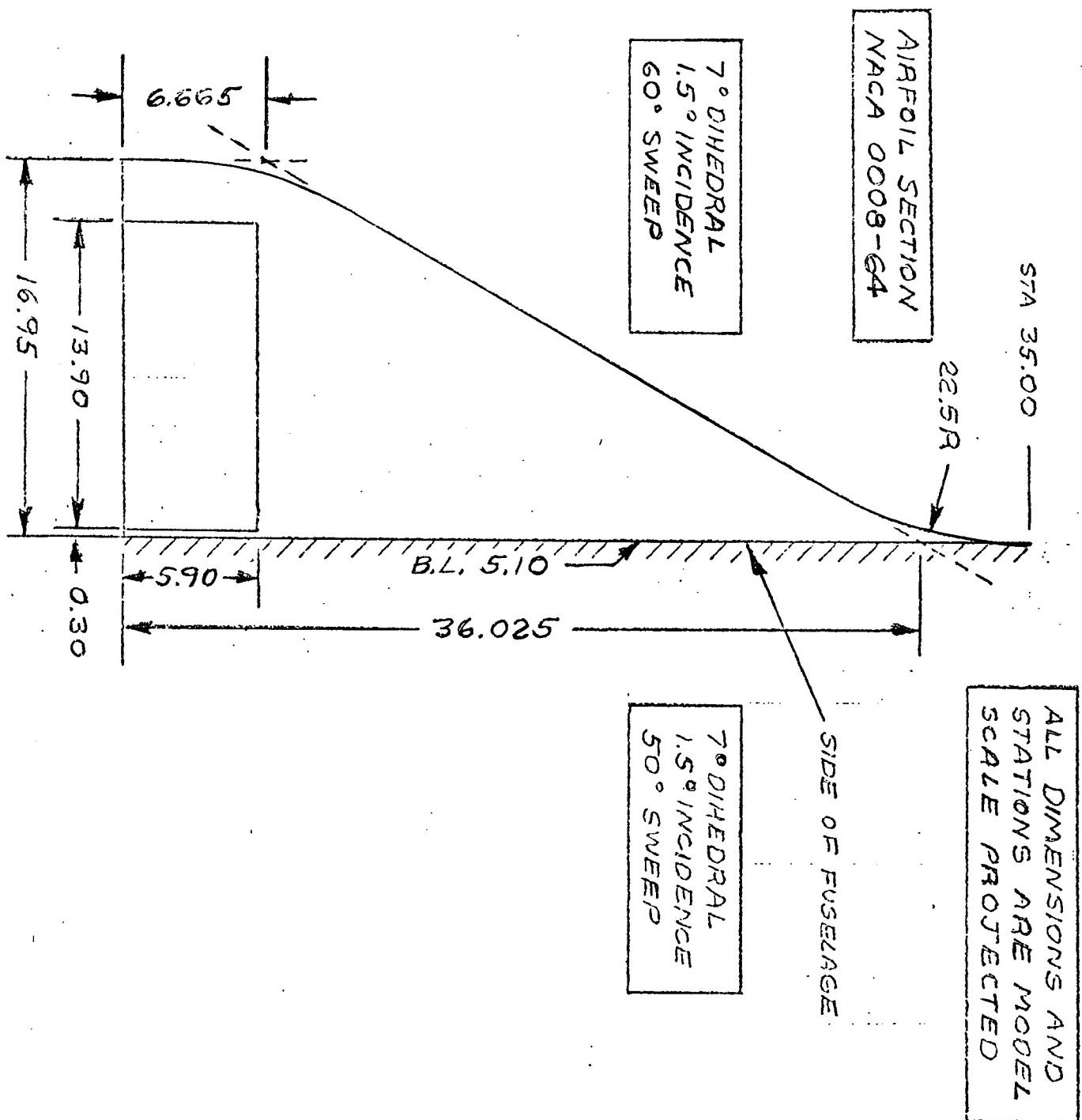


FIGURE 6.- BASIC WING AND ELEVON - W<sub>1</sub>

AIRFOIL SECTION  
NACA 0008 - 64

DIHEDRAL - 7°  
INCIDENCE - 1.5°  
WING SWEEP - 35°  
GLOVE SWEEP - 75°

DIMENSIONS AND STATIONS ARE  
MODEL SCALE PROJECTED

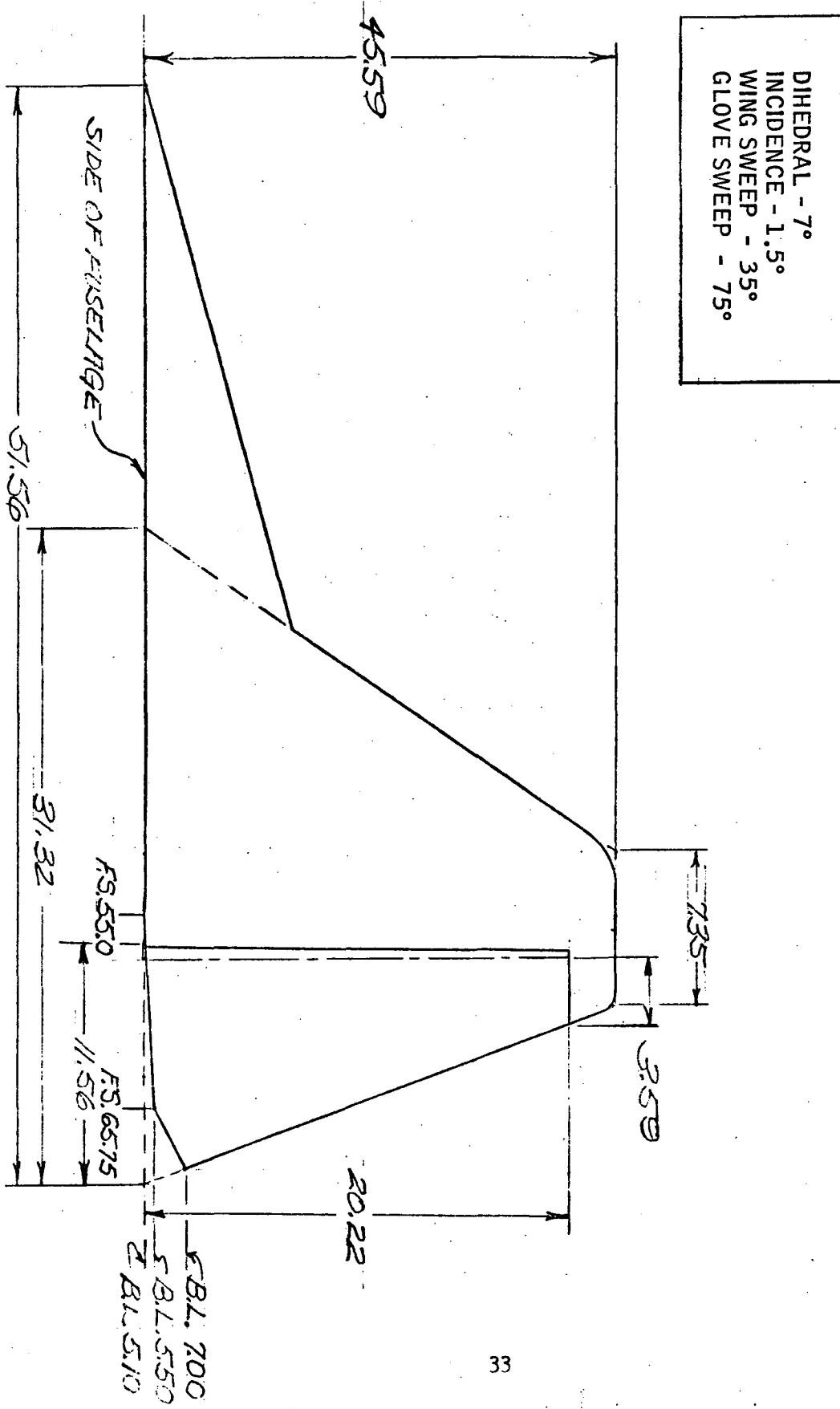


FIGURE 7 - ALTERNATE WING/GLOVE, W<sub>4</sub>

ALL DIMENSIONS AND STATIONS ARE INCHES  
NOMINAL SCALE

AIRFOIL SECTION  
NACA 0012-G4

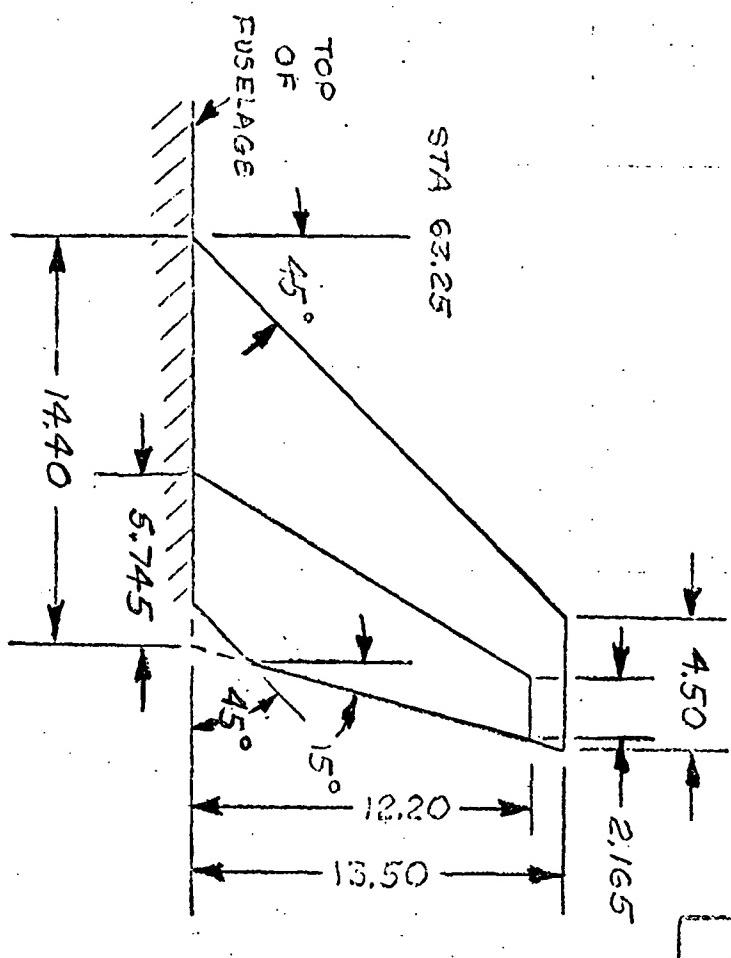


FIGURE 8 - BASIC FIN WITH RUDDER - V<sub>1</sub>

DIMENSIONS AND STATIONS  
ARE MODEL SCALE

AIRFOIL SECTION  
60/40 5° WEDGE

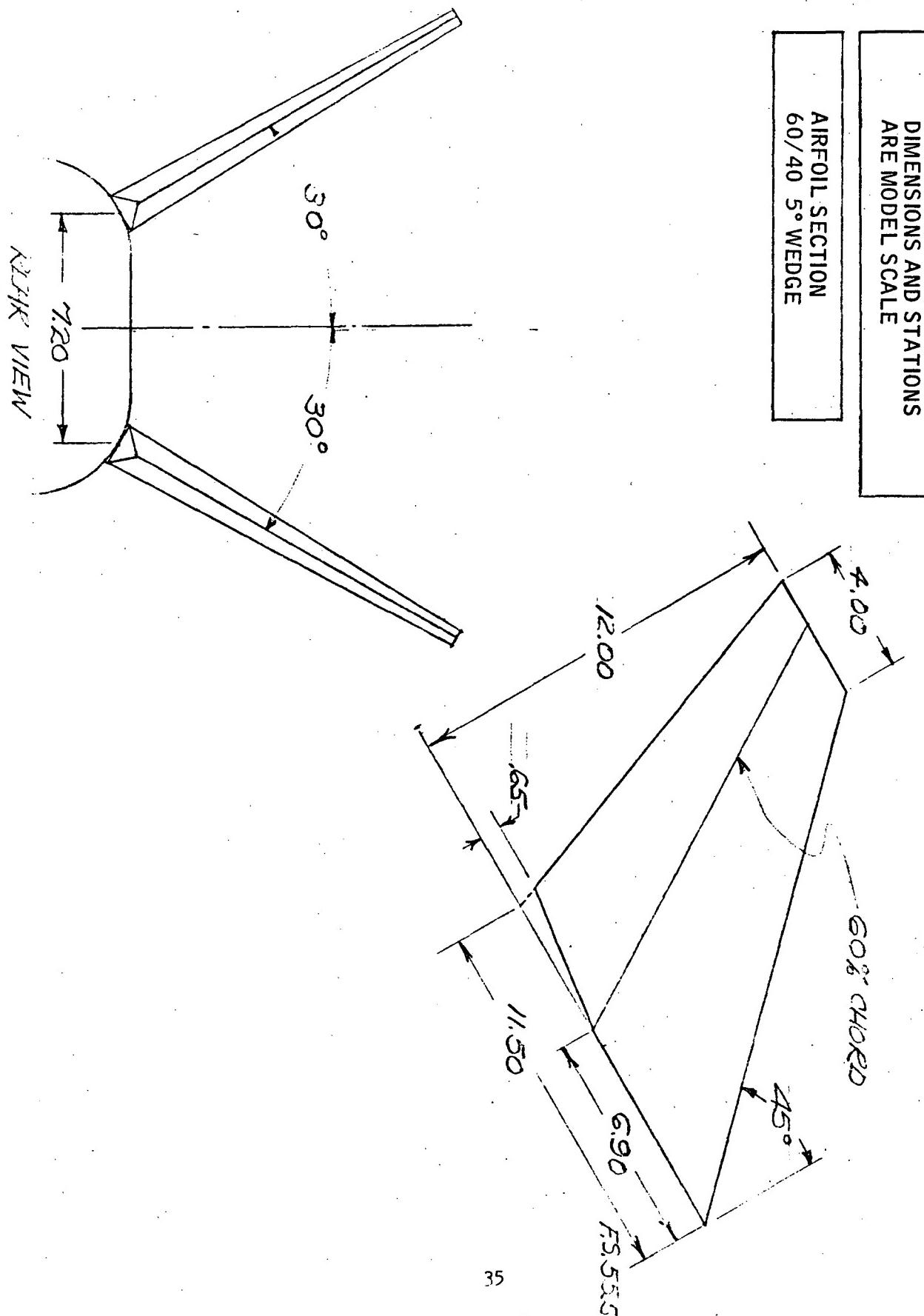


FIGURE 9 - ALTERNATE VERTICAL FIN, V11

AIRFOIL SECTION  
NACA 0008-64

DIMENSIONS AND STATIONS ARE  
MODEL SCALE IN INCHES

DIHEDRAL -  $0^\circ$   
INCIDENCE -  $0^\circ$   
SWEEP -  $35^\circ$

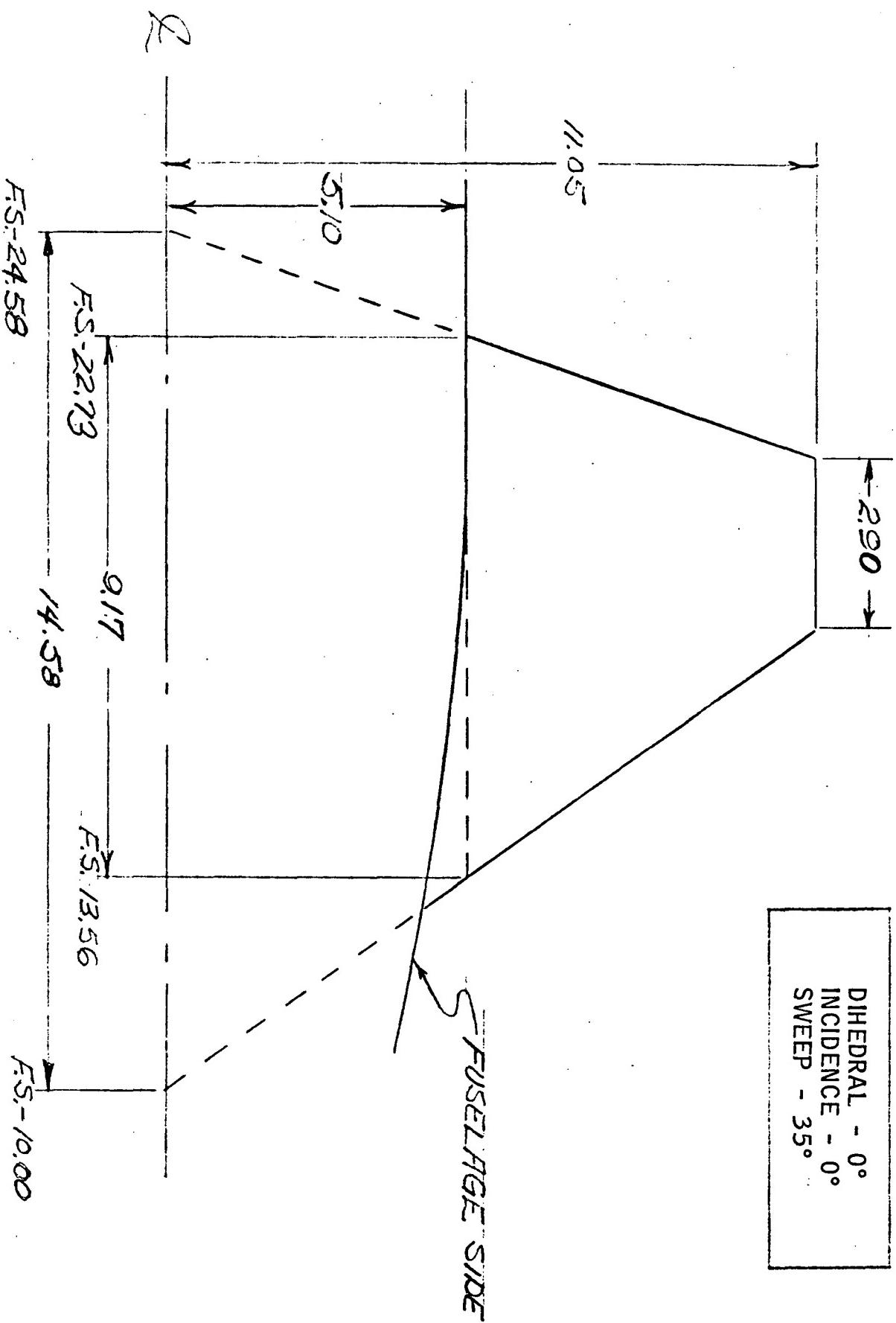


FIGURE 10 - CANARD, N1

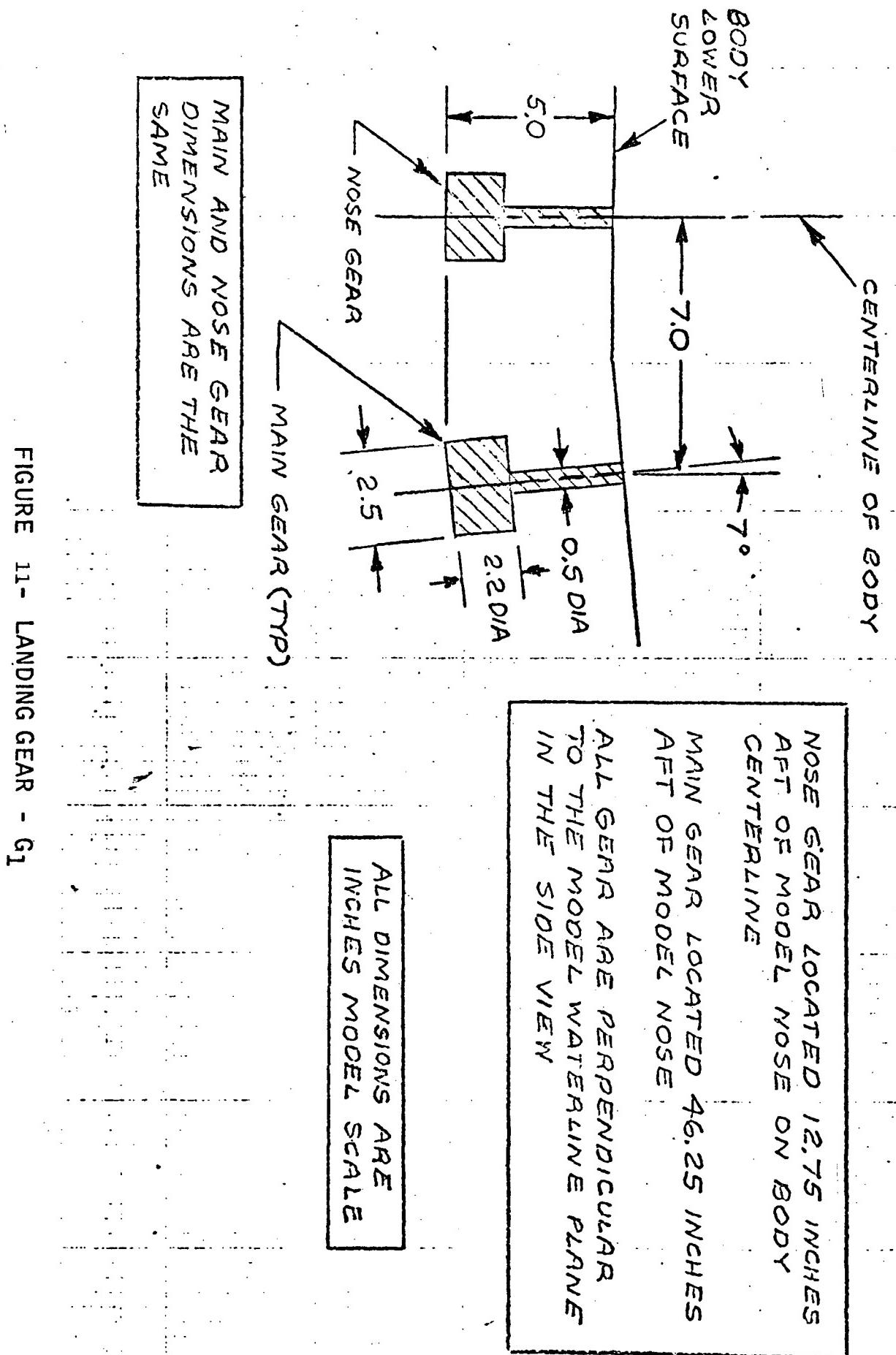


FIGURE 11- LANDING GEAR - G1

ALL DIMENSIONS INCHES MODEL SCALE

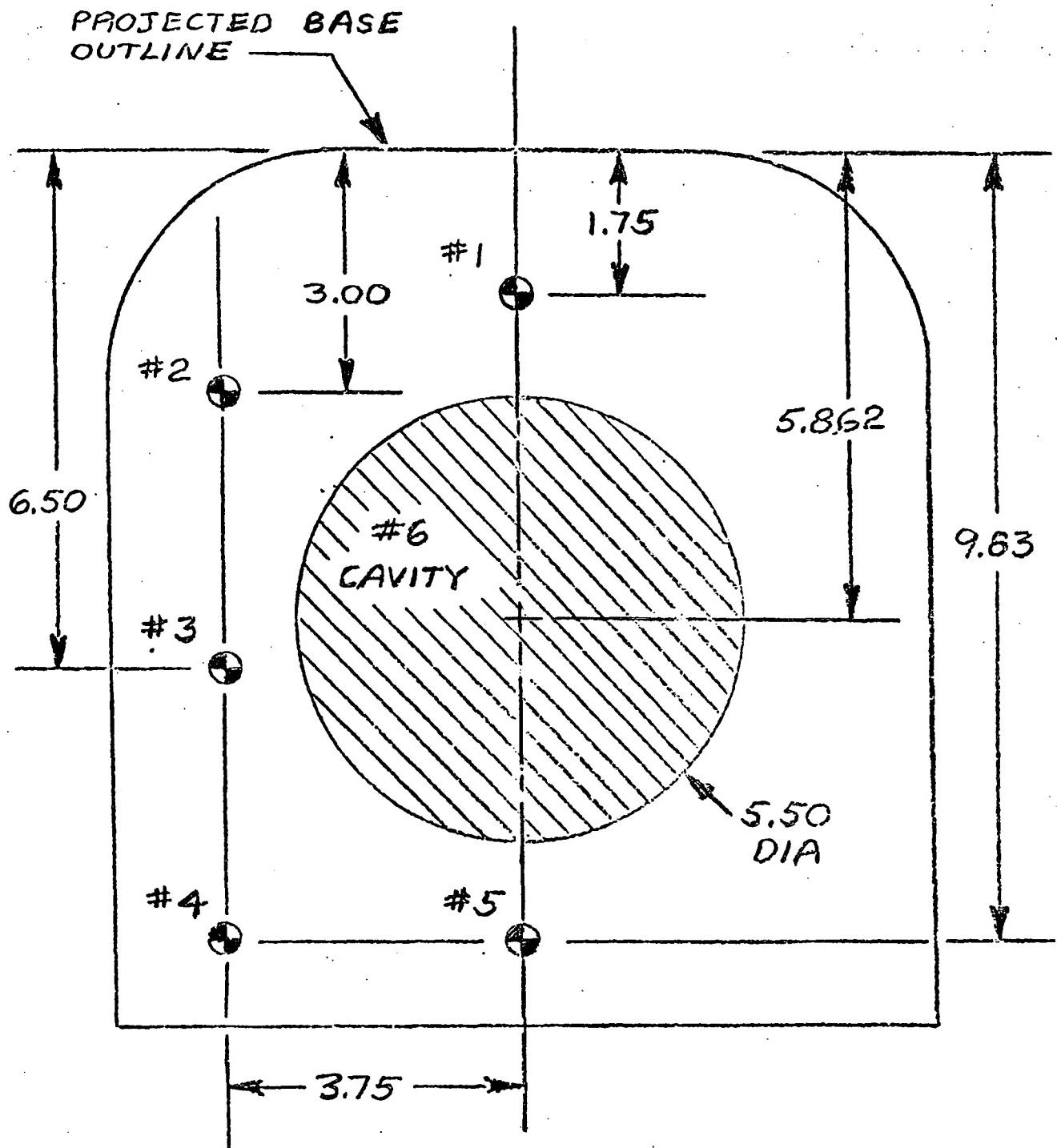


FIGURE 12 - BASE PRESSURE LOCATIONS

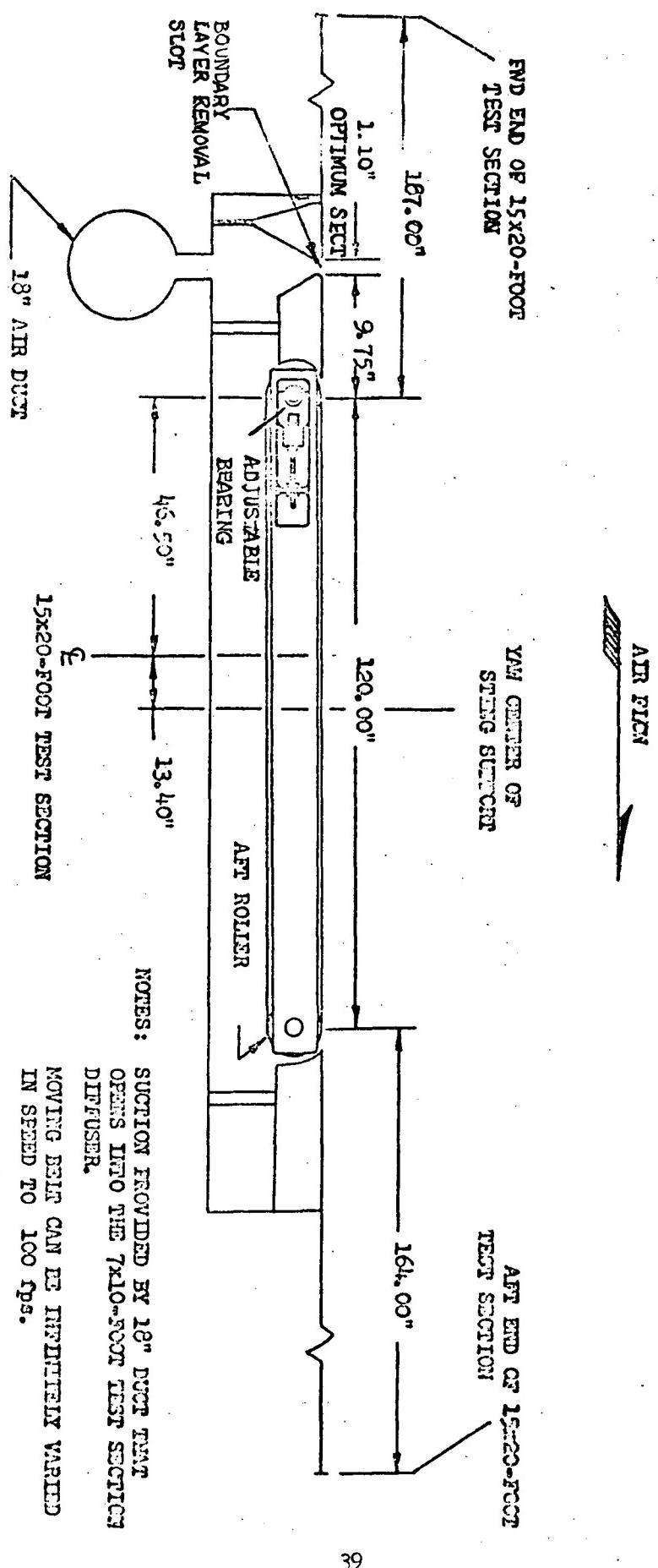


FIGURE 13 - SIDE VIEW MOVING GROUND BELT INSTALLATION. (Reference 2)

- With optimum suction conditions (Slot Gap 1.10 inches)  
--- Without suction.

- NOTES: 1. Freestream Velocity ( $V_\infty$ ) and Velocity of Belt ( $V$ ) were 53 FT/SEC in both cases.  
2. Boundary layer rake located 119.75 inches aft of boundary layer slot.

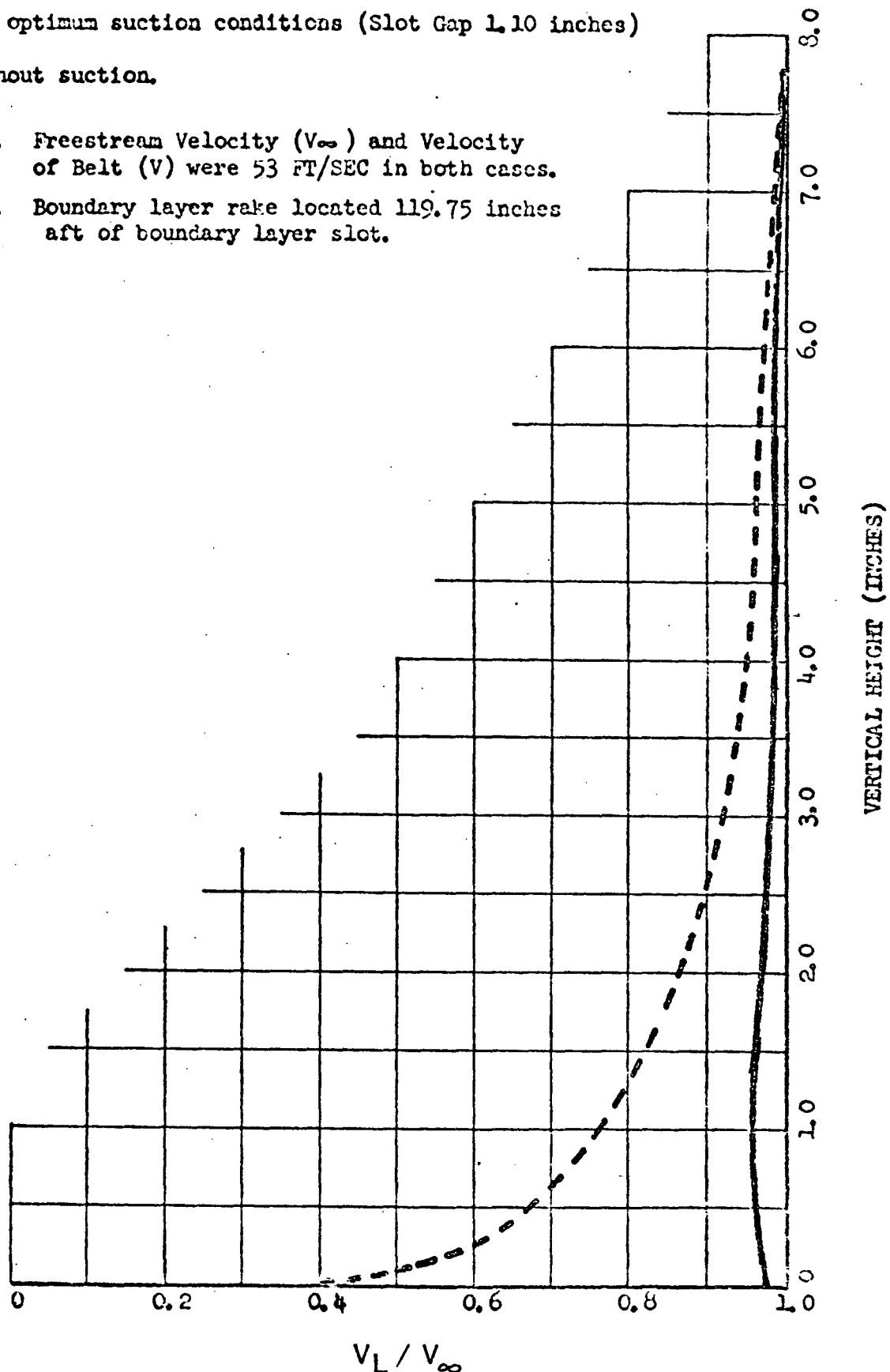


FIGURE 14 - MOVING GROUND BELT SURVEY-EFFECT OF BOUNDARY LAYER SUCTION  
(REFERENCE 2)

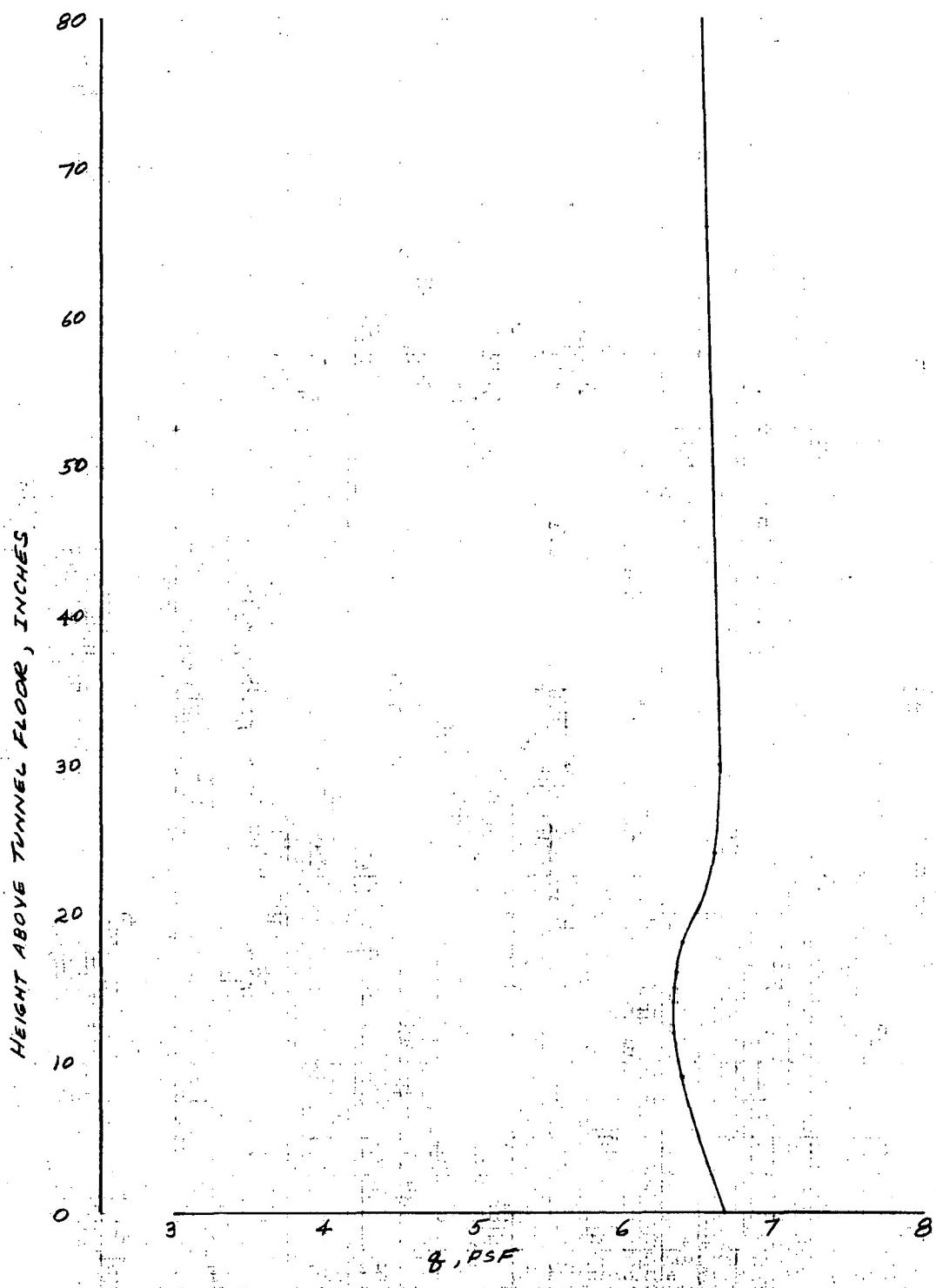


FIGURE 15.- TEST SECTION DYNAMIC PRESSURE AS A FUNCTION OF HEIGHT ABOVE THE TUNNEL FLOOR (GROUND BELT).

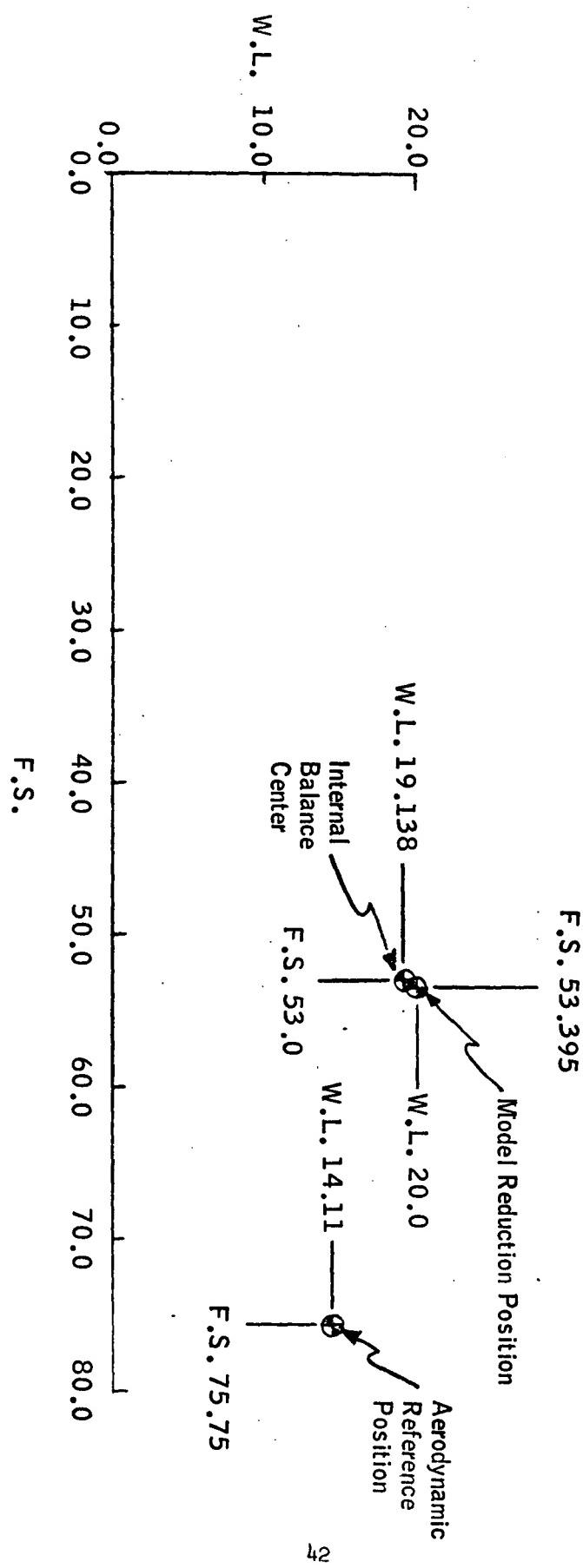


Figure 16.- Location of internal balance center, model reduction position, and aerodynamic reference position; moment transfer diagram.

Notes:

- Positive directions of force coefficients moment coefficients, and angles are indicated by arrows.
- For clarity, origins of wind and stability axes have been displaced from the center of gravity.

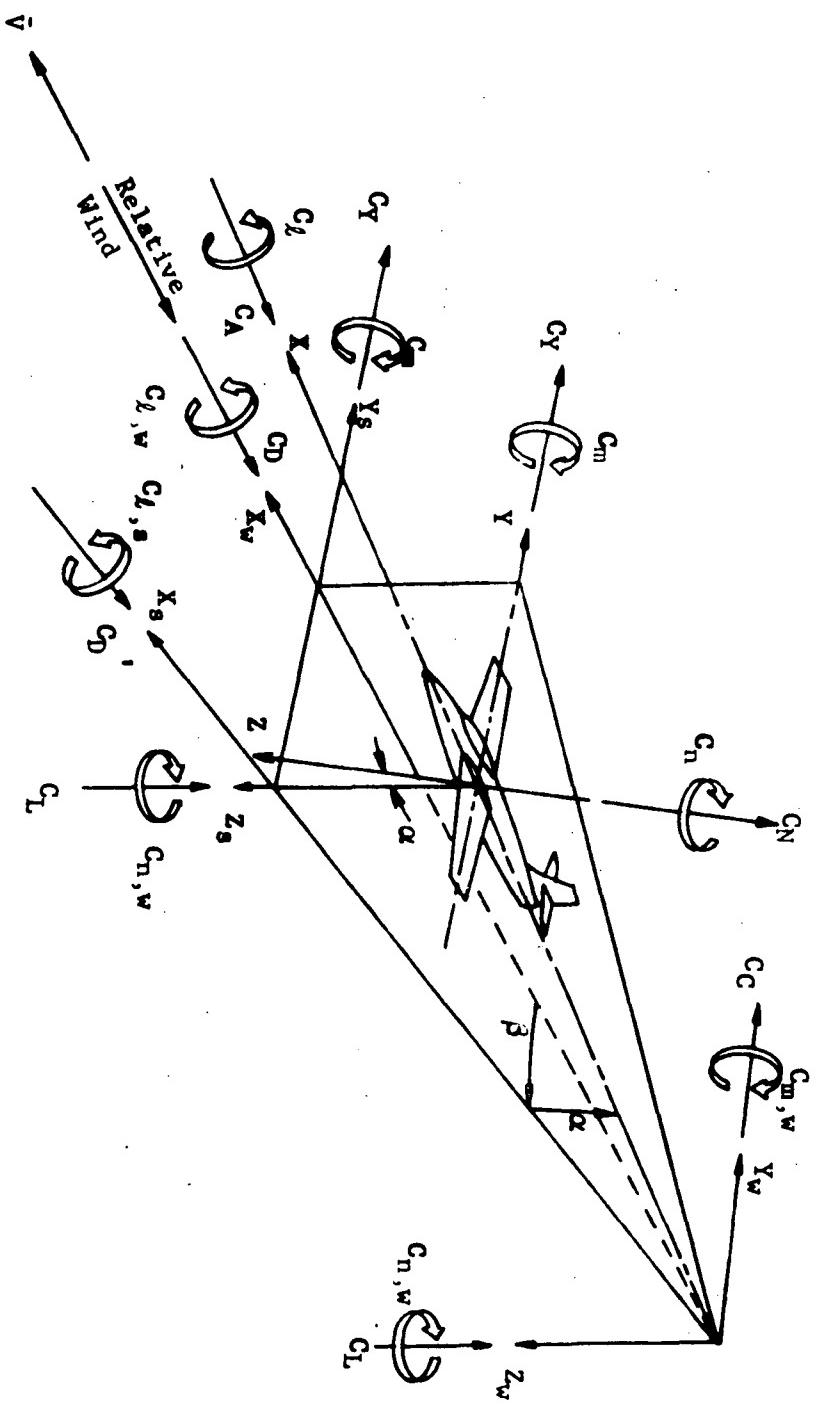
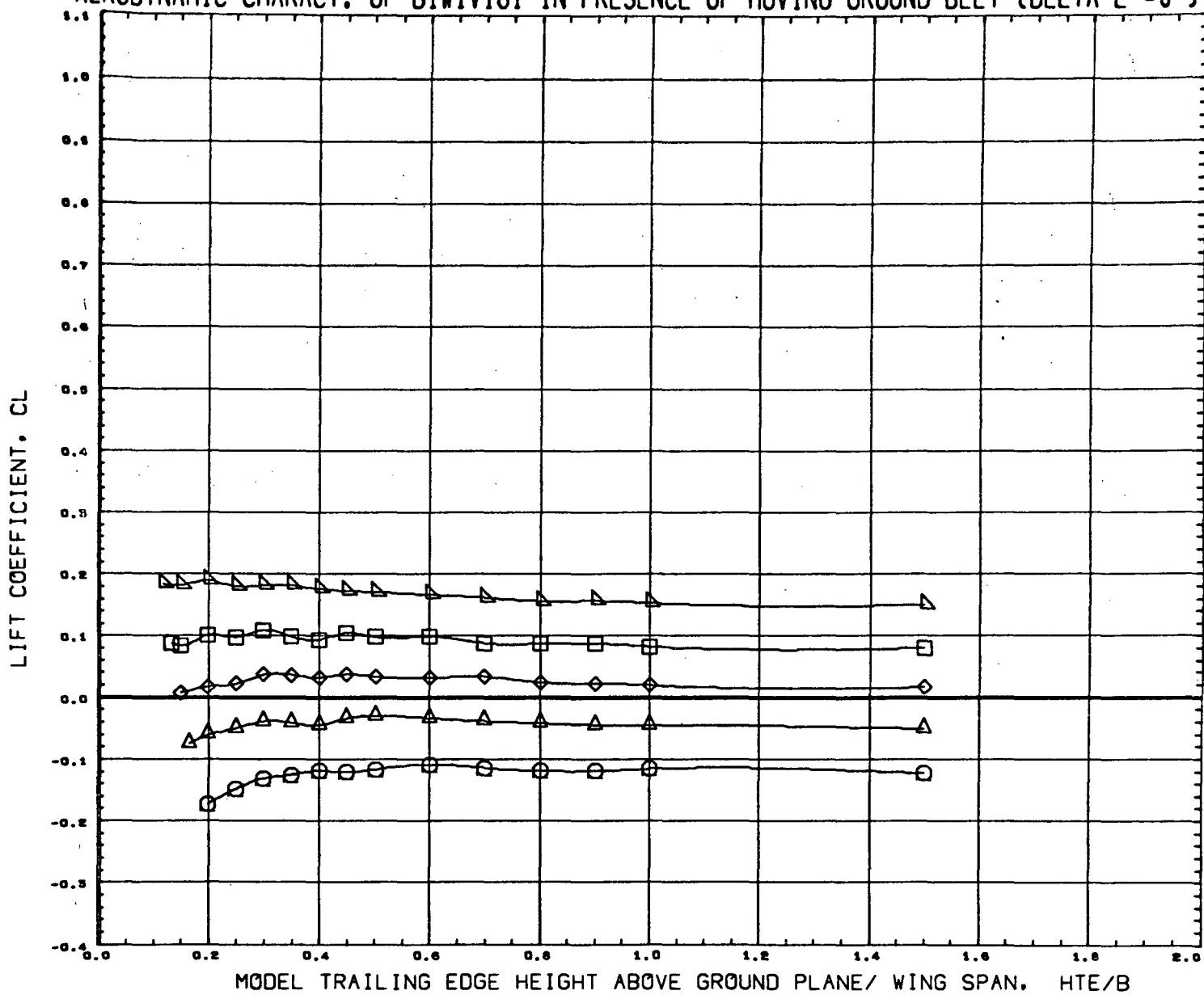


Figure 17. Axis systems, showing direction and sense of force and moment coefficients, angle of attack, and sideslip angle

## **DATA FIGURES**

AERODYNAMIC CHARACT. OF B1W1V1G1 IN PRESENCE OF MOVING GROUND BELT (DELTA E = 0 )



SYMBOL	ALPHA	PARAMETRIC VALUES		
	- 4.000	ELVN-R	0.000	ELVN-L
	- 2.050	ELEVON	0.000	
	0.000			
	1.970			
	3.930			

REFERENCE INFORMATION		
EF	7.8875	SQ.FT.
EF	2.5400	FEET
EF	3.6780	FEET
RP	75.7500	INCHES
RP	0.0000	INCHES
RP	14.1100	INCHES
ALE	0.0000	

**DATA MIST, CODE**

LTV LSWT S-081 B1W1V1G1 (BELT MOVING)

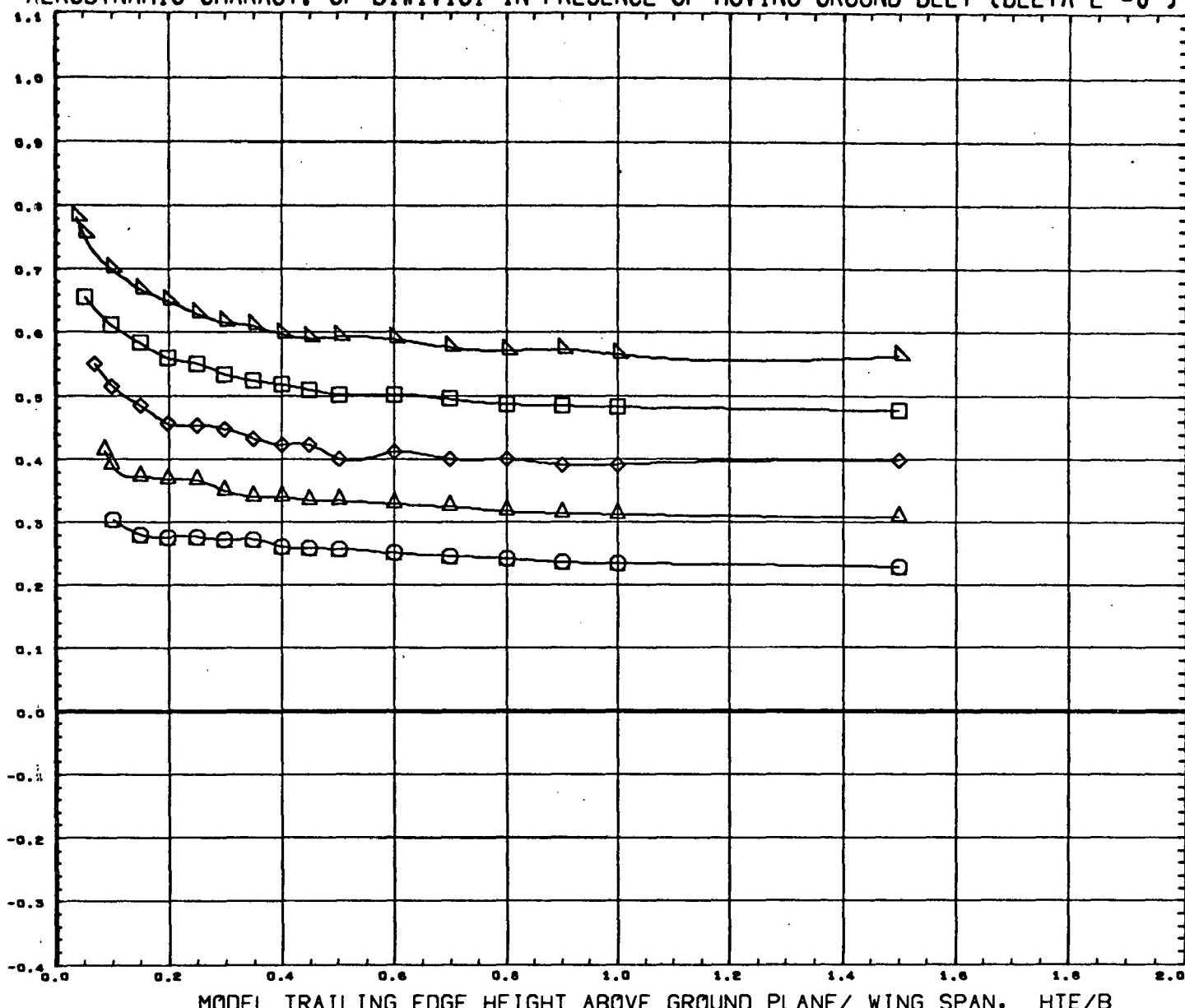
(CDD001) 08 NOV 72

PAGE

1

AERODYNAMIC CHARACT. OF B1W1V1G1 IN PRESENCE OF MOVING GROUND BELT ( $\Delta E = 0$ )

LIFT COEFFICIENT, CL



MODEL TRAILING EDGE HEIGHT ABOVE GROUND PLANE/ WING SPAN, HTE/B

SYMBOL	ALPHA	PARAMETRIC VALUES		
		ELVN-R	0.000	ELVN-L
○	6.000	ELVN-R	0.000	ELVN-L
△	7.930	ELEVON	0.000	
◊	10.100			
□	11.900			
▽	13.970			

DATA MIST. CODE M

REFERENCE INFORMATION		
SREF	7.6675	SQ.FT.
LREF	2.5400	FEET
BREF	3.6780	FEET
XMRP	75.7500	INCHES
YMRP	0.0000	INCHES
ZMRP	14.1100	INCHES
SCALE	0.0000	

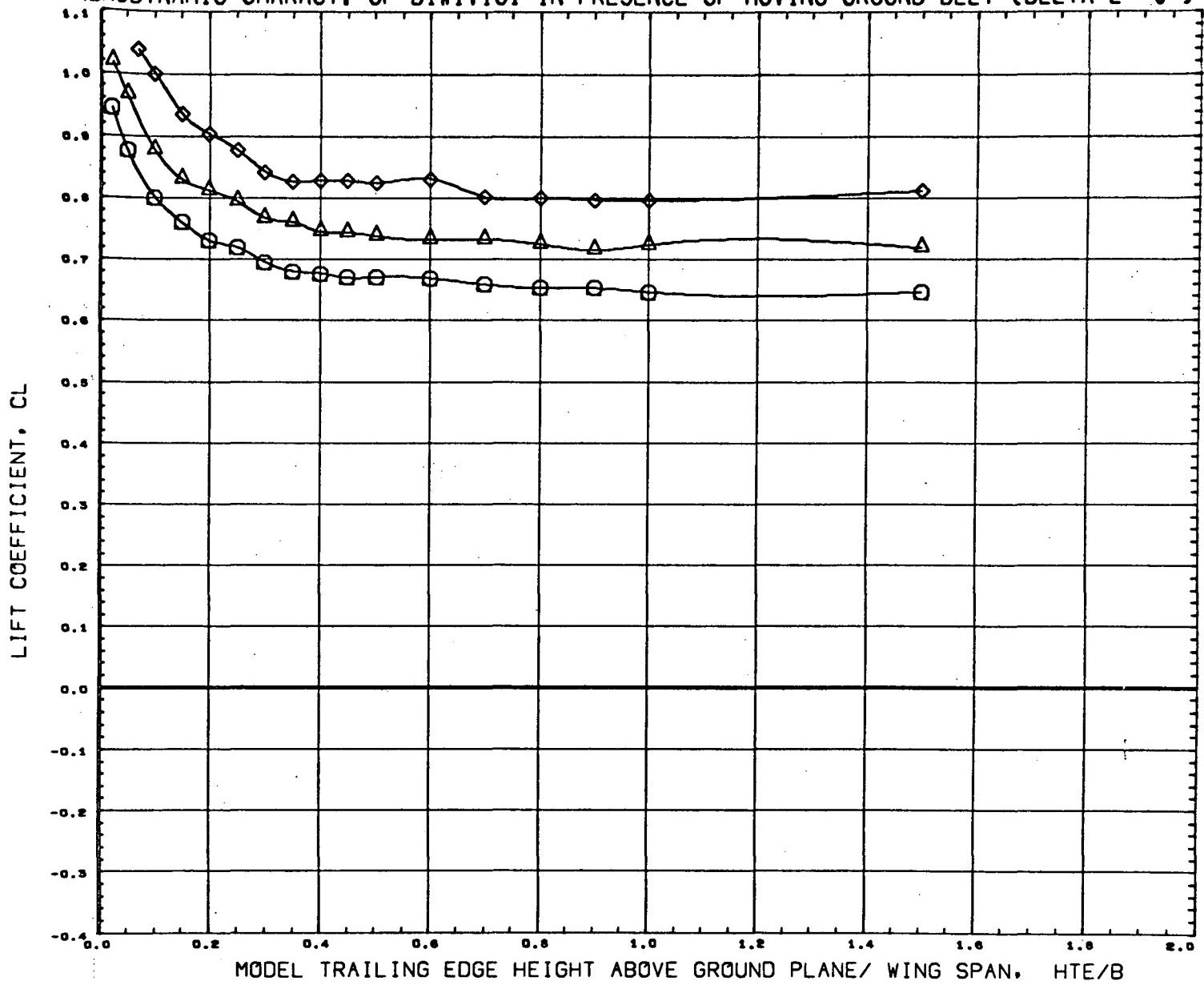
LTV LSWT S-081 B1W1V1G1 (BELT MOVING)

(CDD001) 08 NOV 72

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2

AERODYNAMIC CHARACT. OF B1W1V1G1 IN PRESENCE OF MOVING GROUND BELT (DELTA E = 0 )



DATA HIST. CODE M

LTV LSWT S-081 B1W1V1G1 (BELT MOVING)

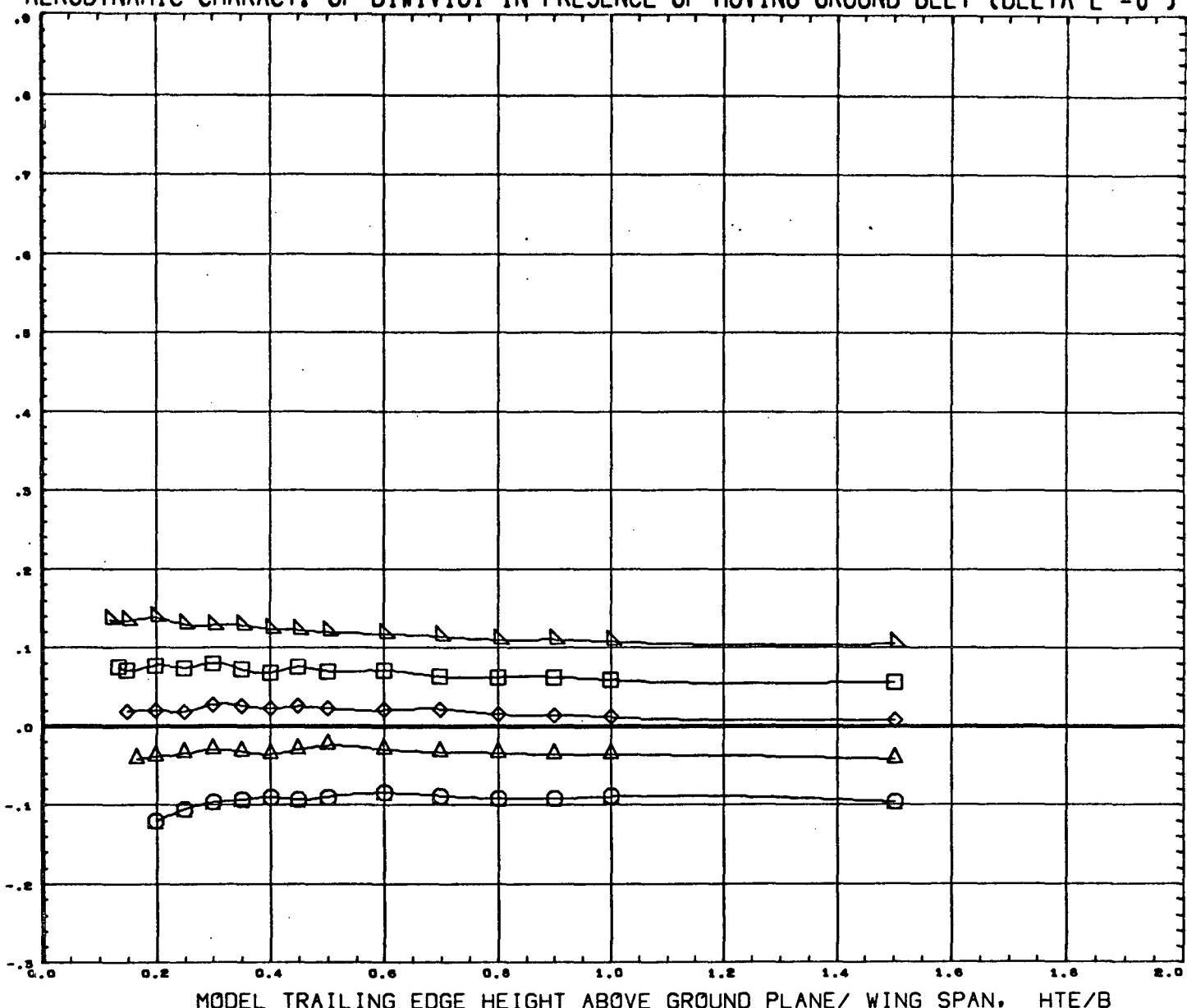
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3

AERODYNAMIC CHARACT. OF B1W1V1G1 IN PRESENCE OF MOVING GROUND BELT (DELTA E = 0 )

PITCHING MOMENT COEFFICIENT. CLM



MODEL TRAILING EDGE HEIGHT ABOVE GROUND PLANE/ WING SPAN. HTE/B

SYMBOL	ALPHA	PARAMETRIC VALUES	
$\triangle$	- 4.000	ELVN-R 2.050	0.000
$\square$	- 2.050	ELEVON 0.000	0.000
$\diamond$	0.000		
$\circ$	1.070		
$\diamond$	3.050		

DATA MIST. CODE M

REFERENCE INFORMATION		
SREF	7.8875	SQ.FT.
LREF	2.5400	FEET
BREF	3.6780	FEET
XMRP	75.7500	INCHES
YMRP	0.0000	INCHES
ZMRP	14.1100	INCHES
SCALE	0.0000	

LTV LSWT S-081 B1W1V1G1 (BELT MOVING)

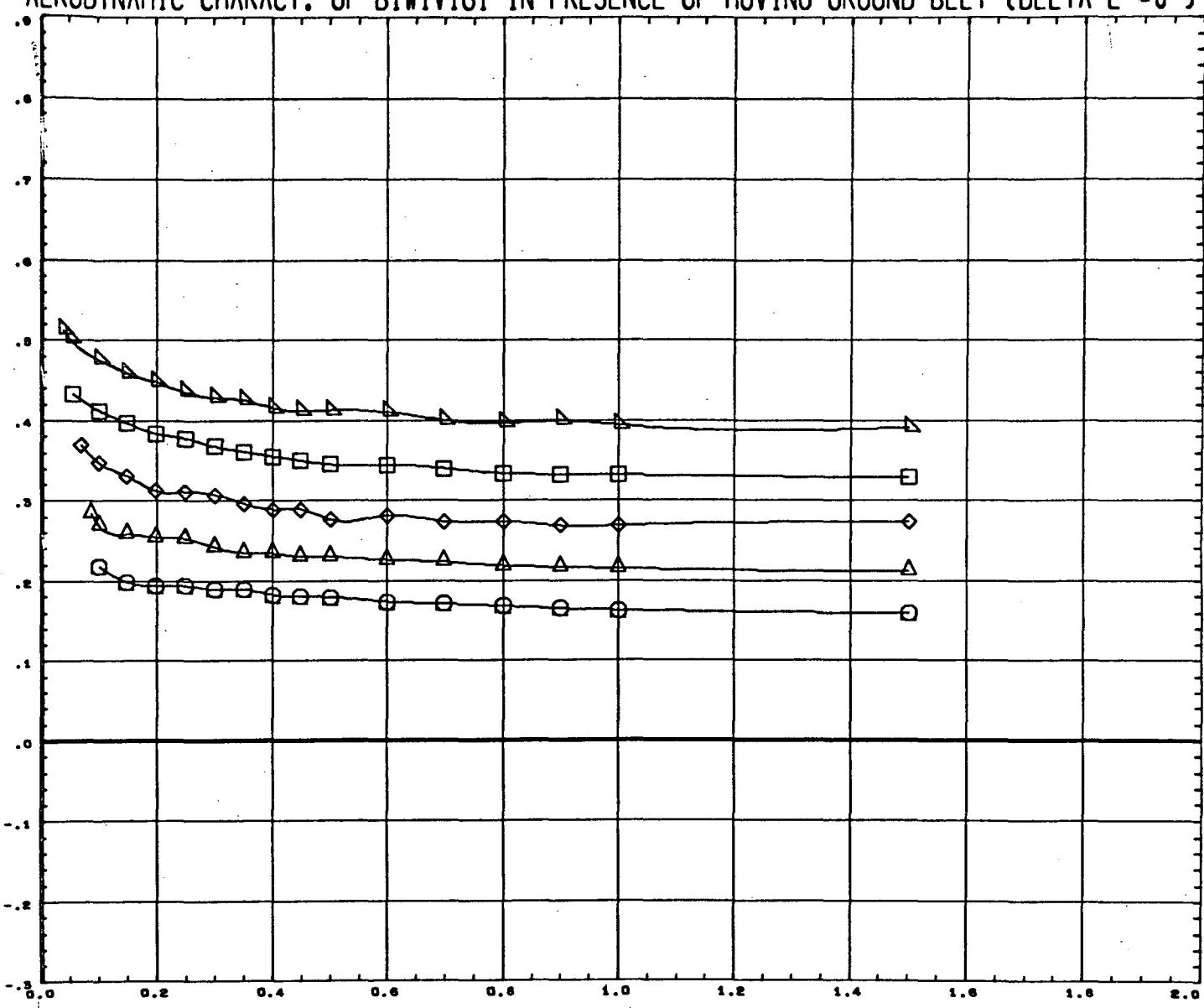
(CDD001) 08 NOV 72

PAGE

4

AERODYNAMIC CHARACT. OF B1W1V1G1 IN PRESENCE OF MOVING GROUND BELT (DELTA E = 0 )

PITCHING MOMENT COEFFICIENT. CLM



MODEL TRAILING EDGE HEIGHT ABOVE GROUND PLANE/ WING SPAN. HTE/B

SYMBOL	ALPHA	PARAMETRIC VALUES			
		ELVN-R	0.000	ELVN-L	0.000
○	6.000				
△	7.930	ELEVON	0.000		
□	10.100				
◇	11.900				
×	13.970				

DATA MIST. CODE M

REFERENCE INFORMATION		
SREF	7.8675	SQ.FT.
LREF	2.5400	FEET
BREF	3.6760	FEET
XMRP	75.7500	INCHES
YMRP	0.0000	INCHES
ZMRP	14.1100	INCHES
SCALE	0.0000	

LTV LSWT S-081 B1W1V1G1 (BELT MOVING)

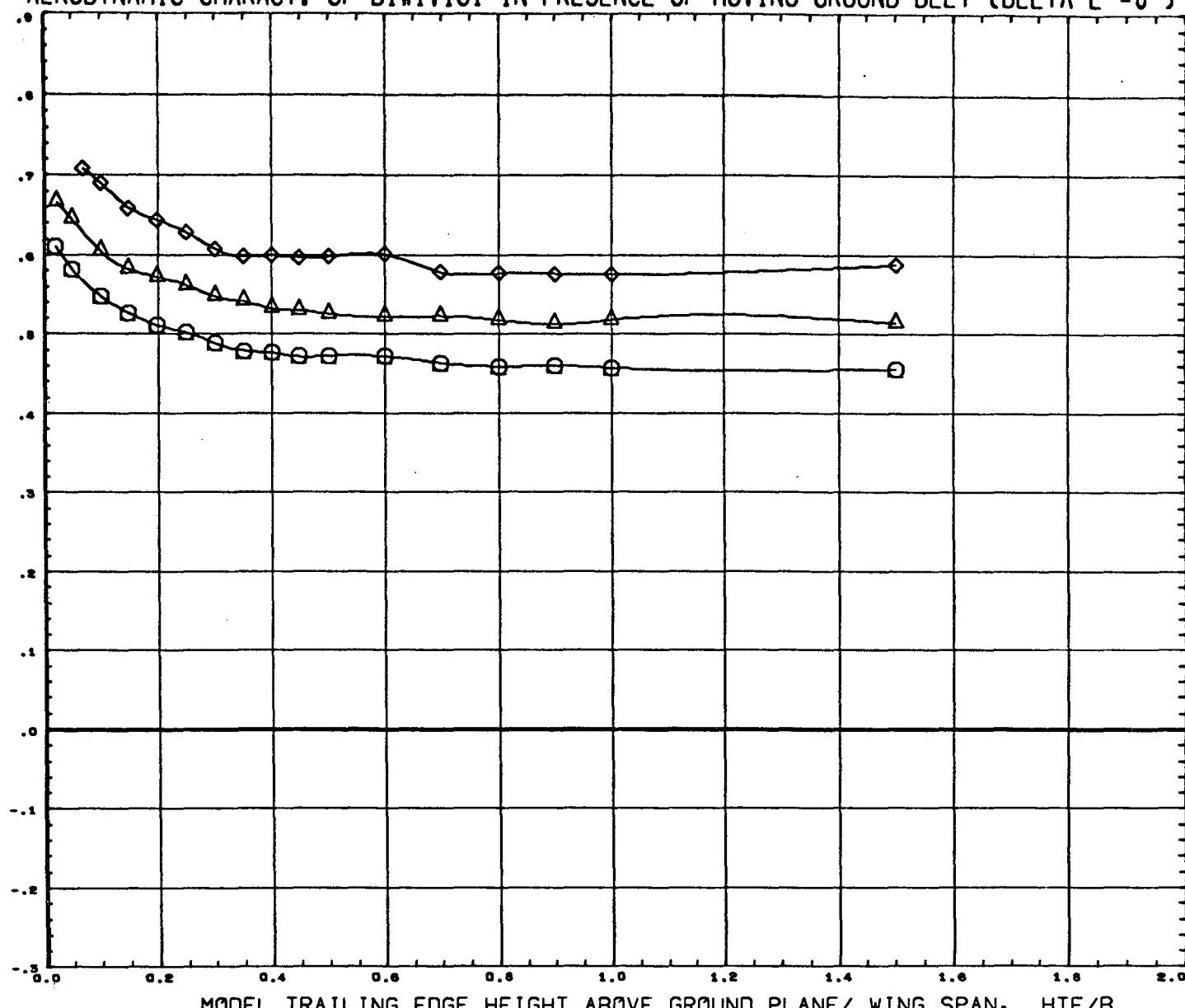
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AERODYNAMIC CHARACT. OF B1W1V1G1 IN PRESENCE OF MOVING GROUND BELT (DELTA E = 0 )

PITCHING MOMENT COEFFICIENT. CLM



MODEL TRAILING EDGE HEIGHT ABOVE GROUND PLANE/ WING SPAN. HTE/B

SYMBOL	PARAMETRIC VALUES		
	ALPHA	ELVN-R	ELVN-L
○	16.000	0.000	0.000
△	16.000	ELEVON	0.000
◊	20.070		

REFERENCE INFORMATION		
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BREF	3.6780	FEET
XMRP	79.7500	INCHES
YMRP	0.0000	INCHES
ZMRP	14.1100	INCHES
SCALE	0.0000	

DATA MIST. CODE H

LTV LSWT S-081 B1W1V1G1 (BELT MOVING)

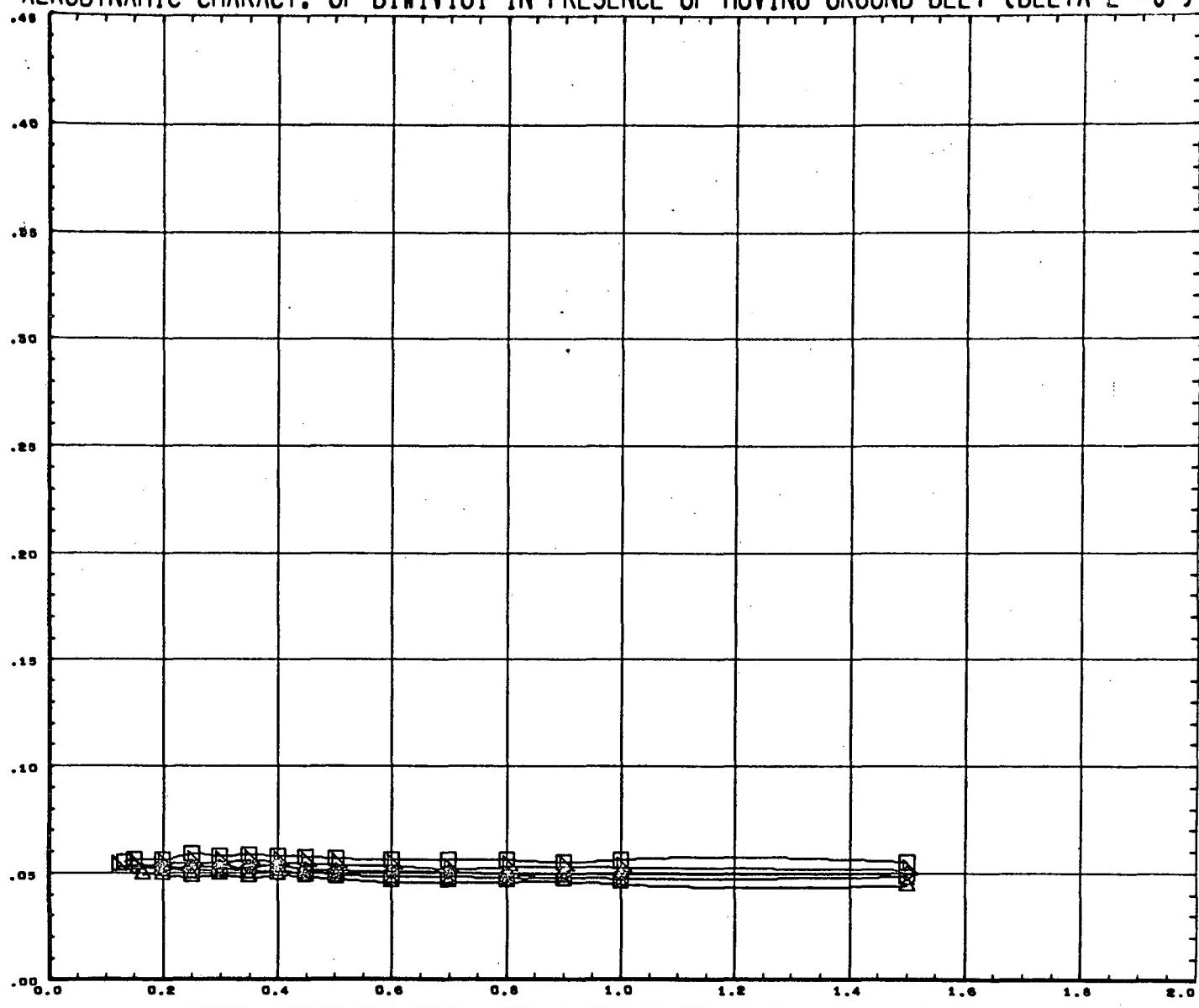
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AERODYNAMIC CHARACT. OF B1W1V1G1 IN PRESENCE OF MOVING GROUND BELT (DELTA E = 0 )

DRAG COEFFICIENT, CD



MODEL TRAILING EDGE HEIGHT ABOVE GROUND PLANE/ WING SPAN, HTE/B

SYMBOL	ALPHA	PARAMETRIC VALUES	
		ELVN-R	ELVN-L
-	4.000	0.000	0.000
-	2.050	0.000	
◊	0.000		
□	1.970		
▷	3.950		

DATA MIST. CODE M

REFERENCE INFORMATION		
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LREF	2.9400	FEET
BREF	3.6780	FEET
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ZMRP	14.1100	INCHES
SCALE	0.0000	

LTV LSWT S-081 B1W1V1G1 (BELT MOVING)

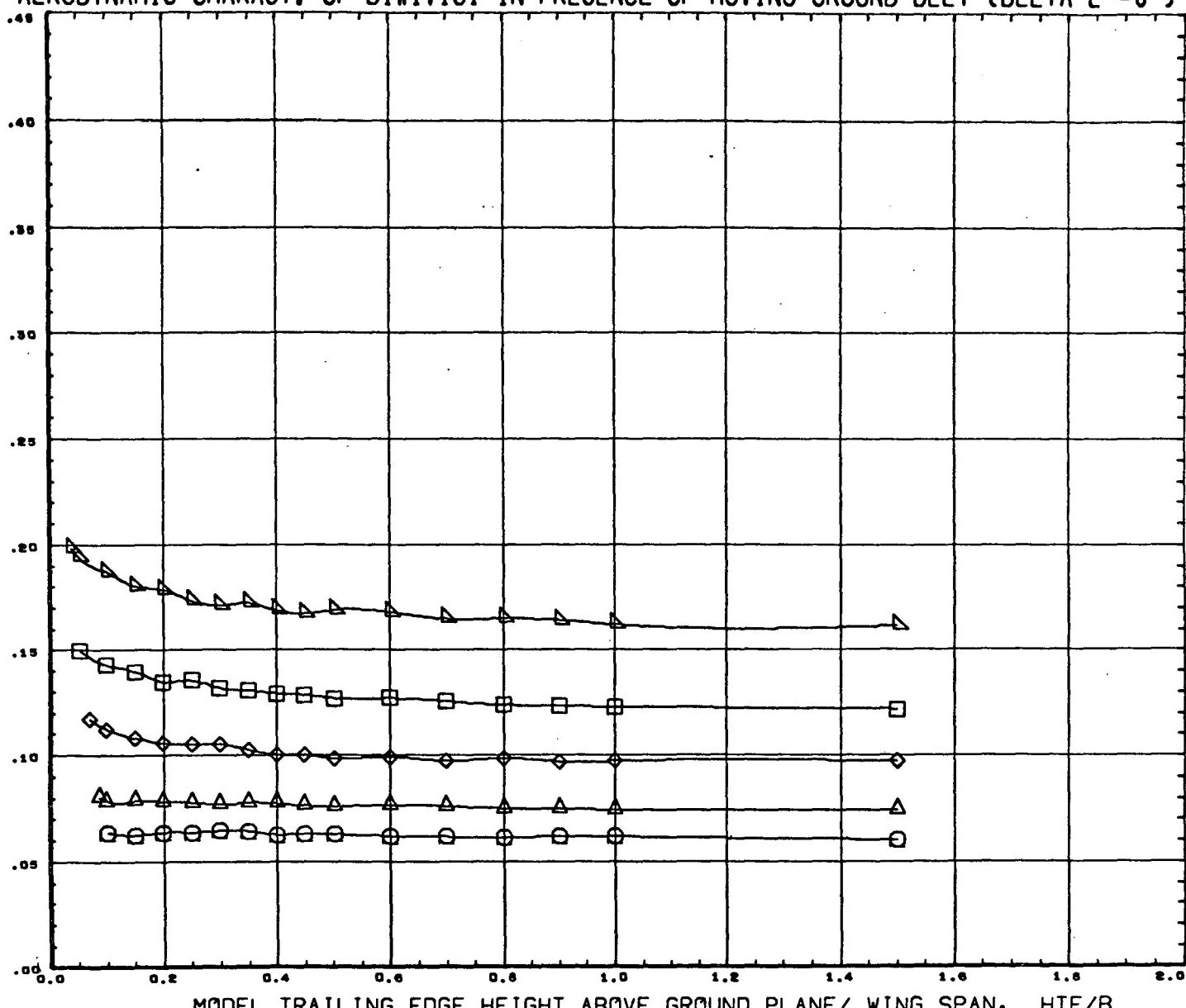
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AERODYNAMIC CHARACT. OF B1W1V1G1 IN PRESENCE OF MOVING GROUND BELT (DELTA E = 0 )

DRA G COEFFICIENT. CD



MODEL TRAILING EDGE HEIGHT ABOVE GROUND PLANE/ WING SPAN. HTE/B

SYMBOL	ALPHA	PARAMETRIC VALUES			REFERENCE INFORMATION		
		ELVN-R	ELVN-L	0.000	SREF	7.8675	SQ.FT.
△	6.000	0.000	ELVN-L	0.000	LREF	2.5400	FEET
◊	7.930	ELEVON	0.000		BREF	3.6760	FEET
□	10.100				XMRP	75.7500	INCHES
○	11.900				YMRP	0.0000	INCHES
×	13.970				ZMRP	14.1100	INCHES
					SCALE	0.0000	

DATA MIST. CODE M

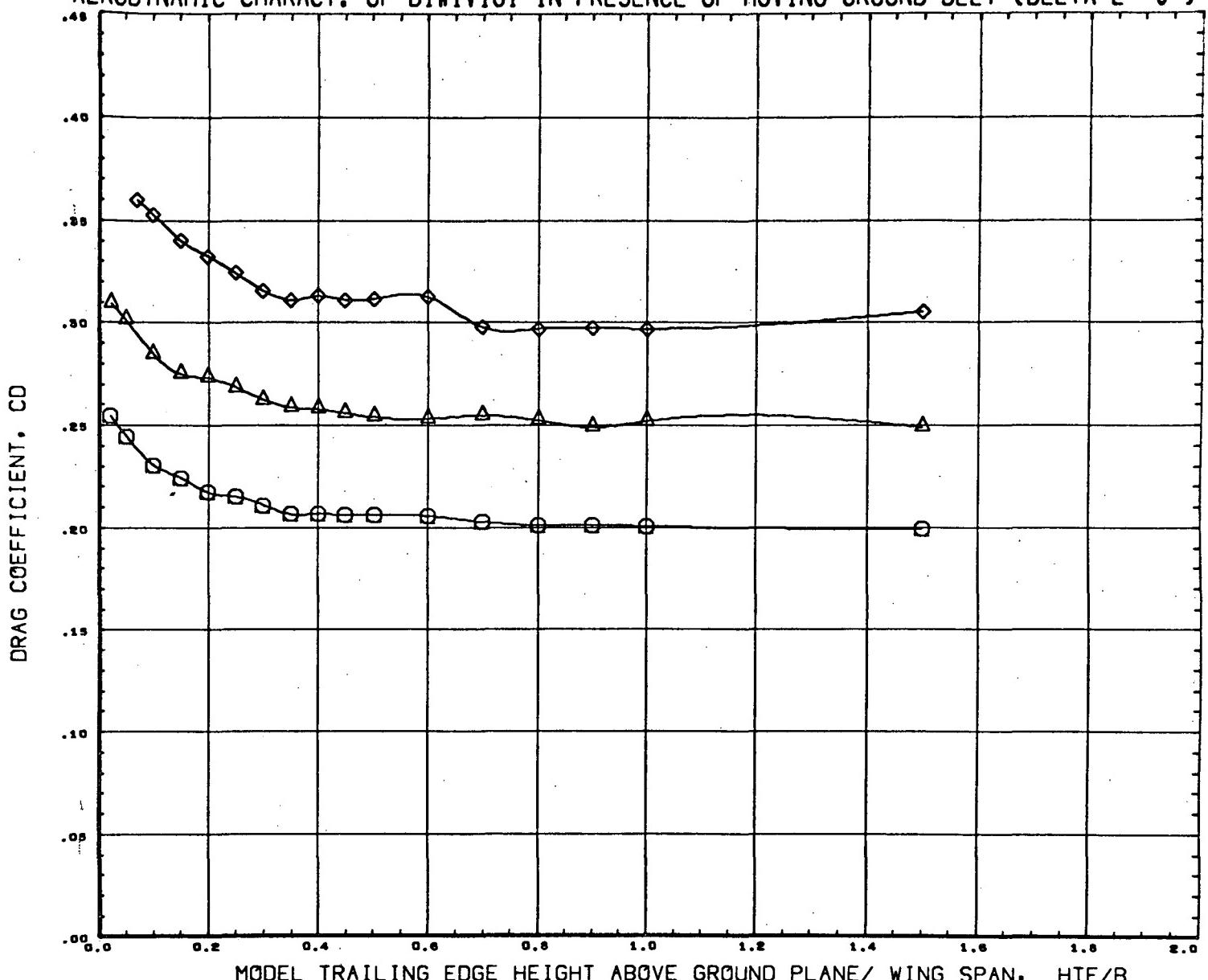
LTV LSWT S-081 B1W1V1G1 (BELT MOVING)

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## AERODYNAMIC CHARACT. OF B1W1V1G1 IN PRESENCE OF MOVING GROUND BELT (DELTA E = 0 )



SYMBOL	ALPHA	PARAMETRIC VALUES		
	16.000	ELEV-R	0.000	ELEV-L
	16.000	ELEVON	0.000	
	20.070			

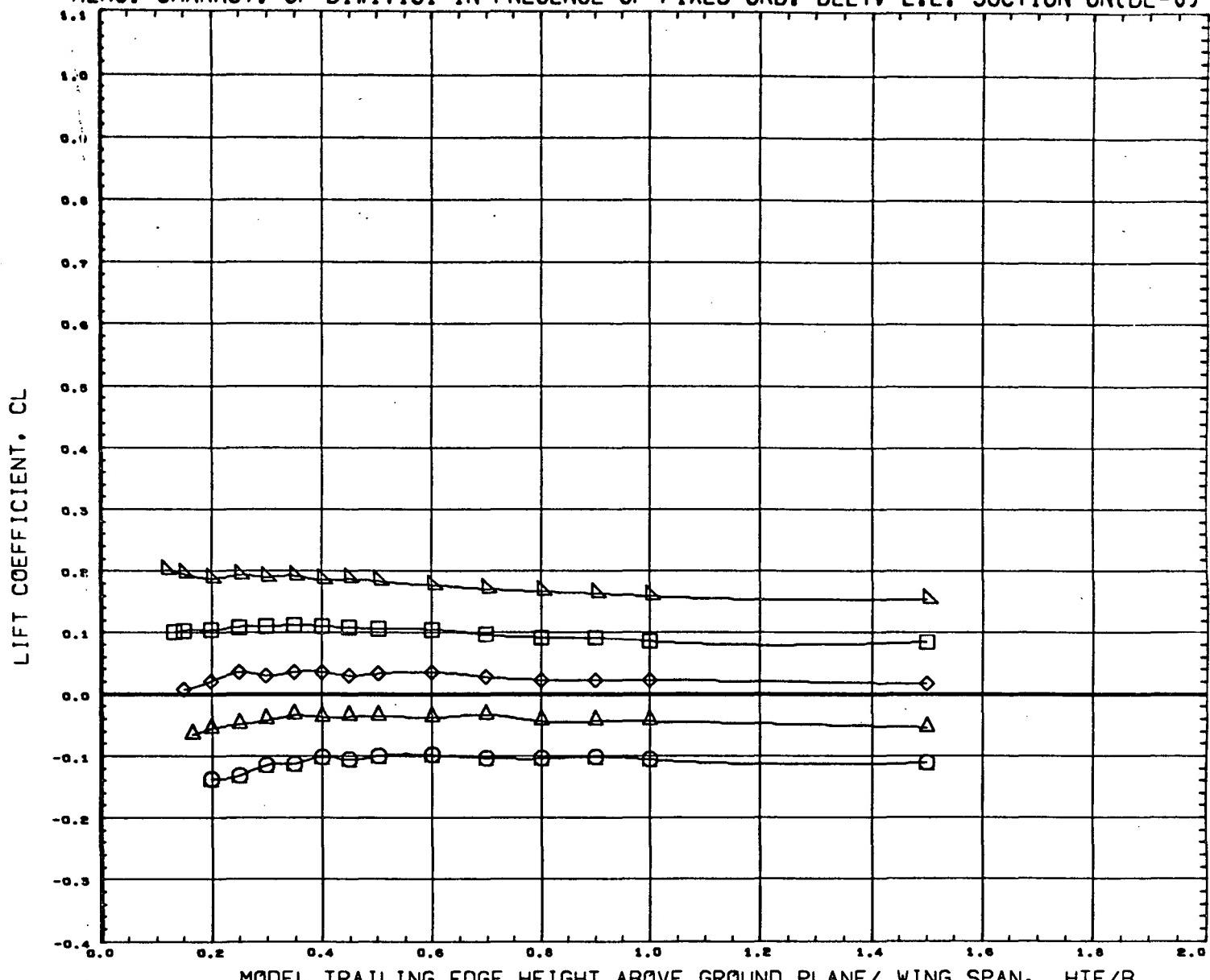
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REF	3.6760	FEET
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MRP	14.1100	INCHES
CALE	0.0000	

**PATA MIST: CODE**

LTV LSWT S-081 B1W1V1G1 (BELT MOVING)

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AERO. CHARACT. OF B1W1V1G1 IN PRESENCE OF FIXED GRD. BELT. L.E. SUCTION ON(DEL=0)

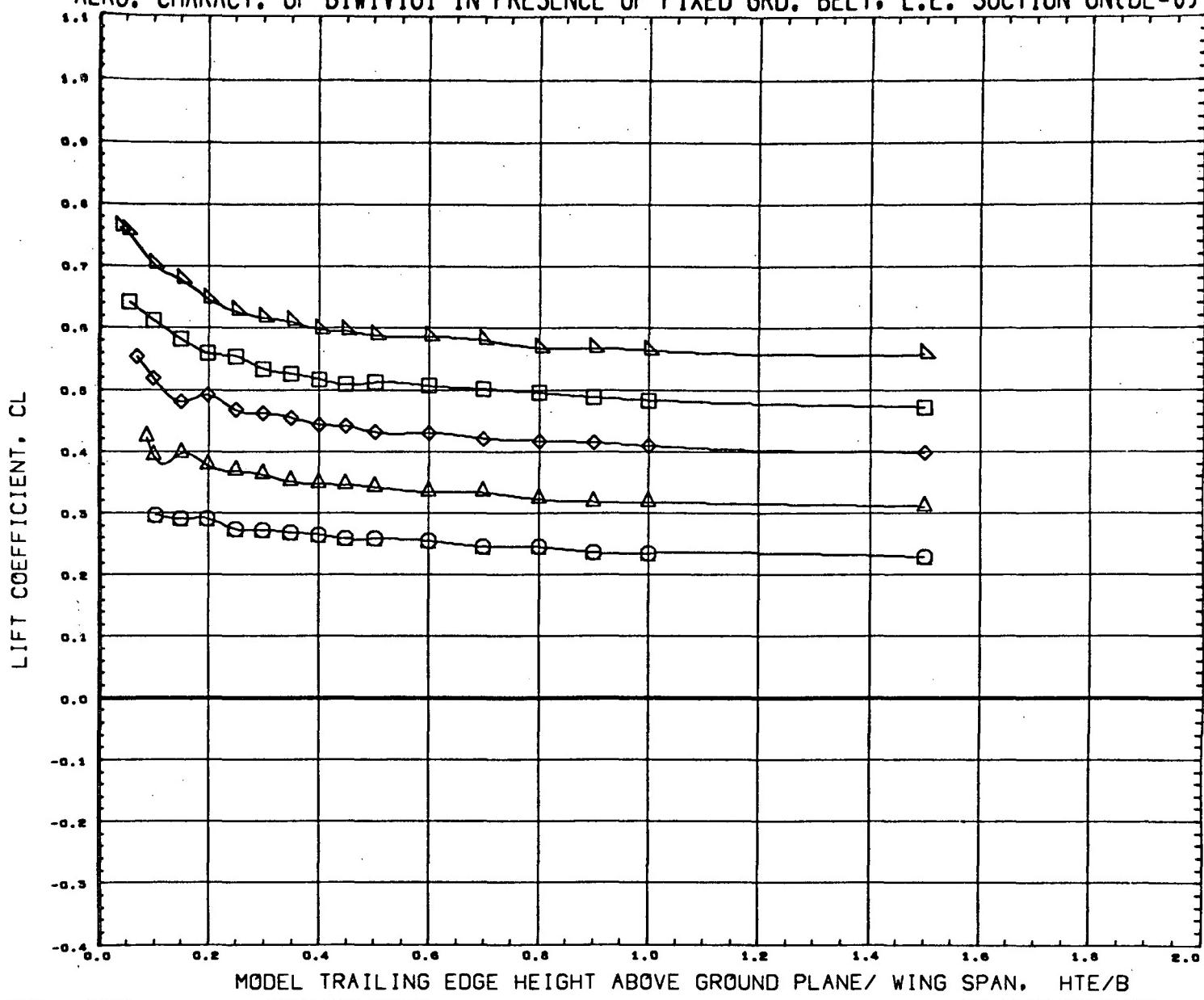


SYMBOL	ALPHA	PARAMETRIC VALUES
○	- 4.000	ELVN-R 0.000    ELVN-L 0.000
△	- 2.050	ELEVON 0.000
◊	0.000	
□	1.970	
■	3.930	

REFERENCE FILE

REFERENCE INFORMATION		
SREF	7.8875	SQ.FT.
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BREF	3.6760	FEET
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YMRP	0.0000	INCHES
ZMRP	14.1100	INCHES
SCALE	0.0000	

AERO. CHARACT. OF B1W1V1G1 IN PRESENCE OF FIXED GRD. BELT, L.E. SUCTION ON(DEL=0)



SYMBOL	ALPHA		PARAMETRIC VALUES
○	6.000	ELVN-R	0.000 ELVN-L 0.
△	7.930	ELEVON	0.000
◊	10.100		
□	11.900		
↗	13.970		

REFERENCE INFORMATION		
EF	7.8875	SQ.FT.
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EF	3.6780	FEET
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IRP	0.0000	INCHES
IRP	14.1100	INCHES
ALE	0.0000	

REFERENCE FILE

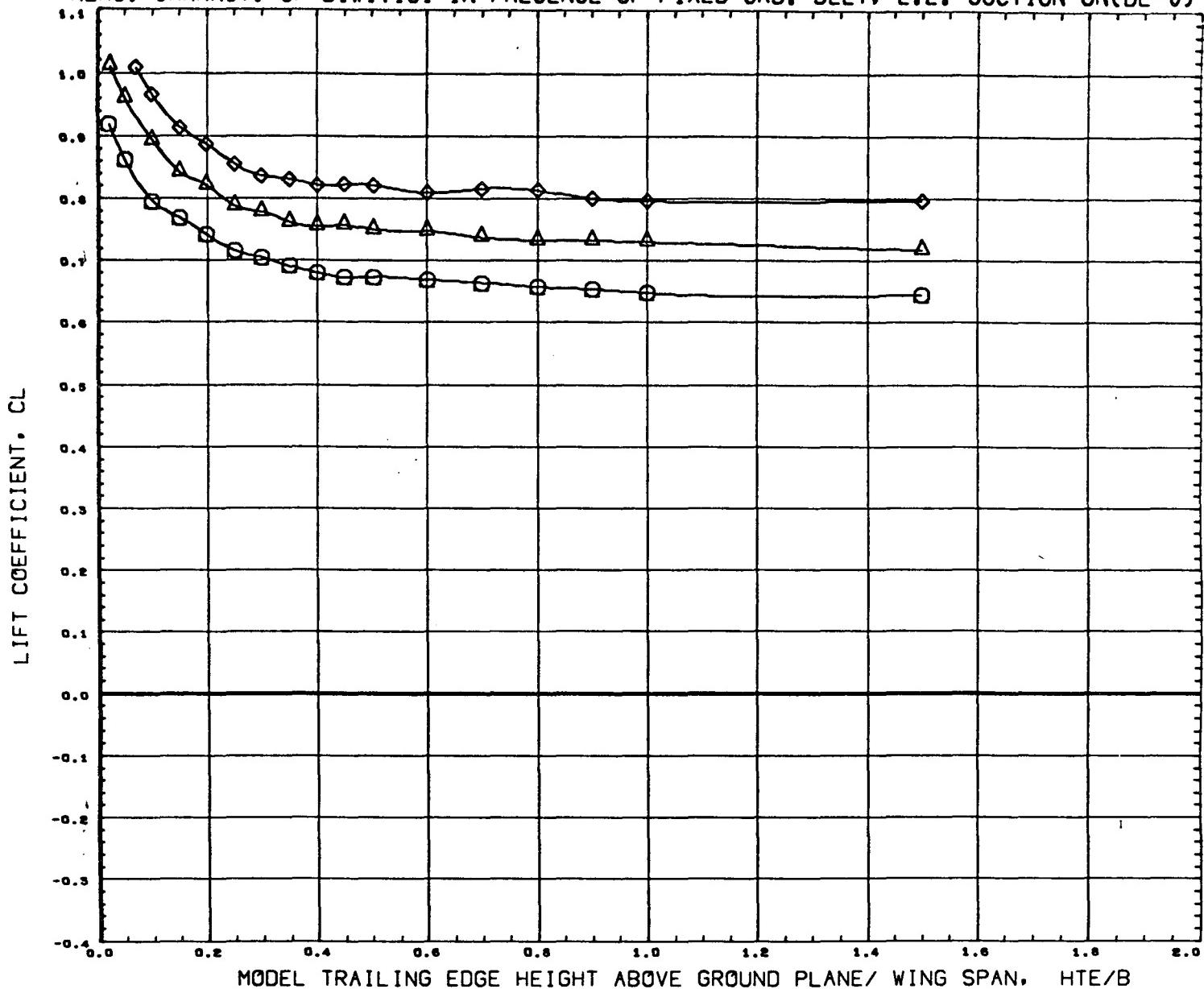
LTV LSWT S-081 B1W1V1G1 (BELT STATIONARY)

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AERO. CHARACT. OF B1W1V1G1 IN PRESENCE OF FIXED GRD. BELT, L.E. SUCTION ON(DEL=0)



MODEL TRAILING EDGE HEIGHT ABOVE GROUND PLANE/ WING SPAN, HTE/B

SYMBOL	ALPHA	PARAMETRIC VALUES	
		ELVN-R	ELVN-L
○	16.000	0.000	0.000
△	18.000	0.000	0.000
◊	20.070		

REFERENCE INFORMATION		
SREF	7.8875	INCHES
LREF	2.5400	FEET
BREF	3.6780	FEET
XMRP	75.7500	INCHES
YMRP	0.0000	INCHES
ZMRP	14.1100	INCHES
SCALE	0.0000	

REFERENCE FILE

LTV LSWT S-081 B1W1V1G1 (BELT STATIONARY)

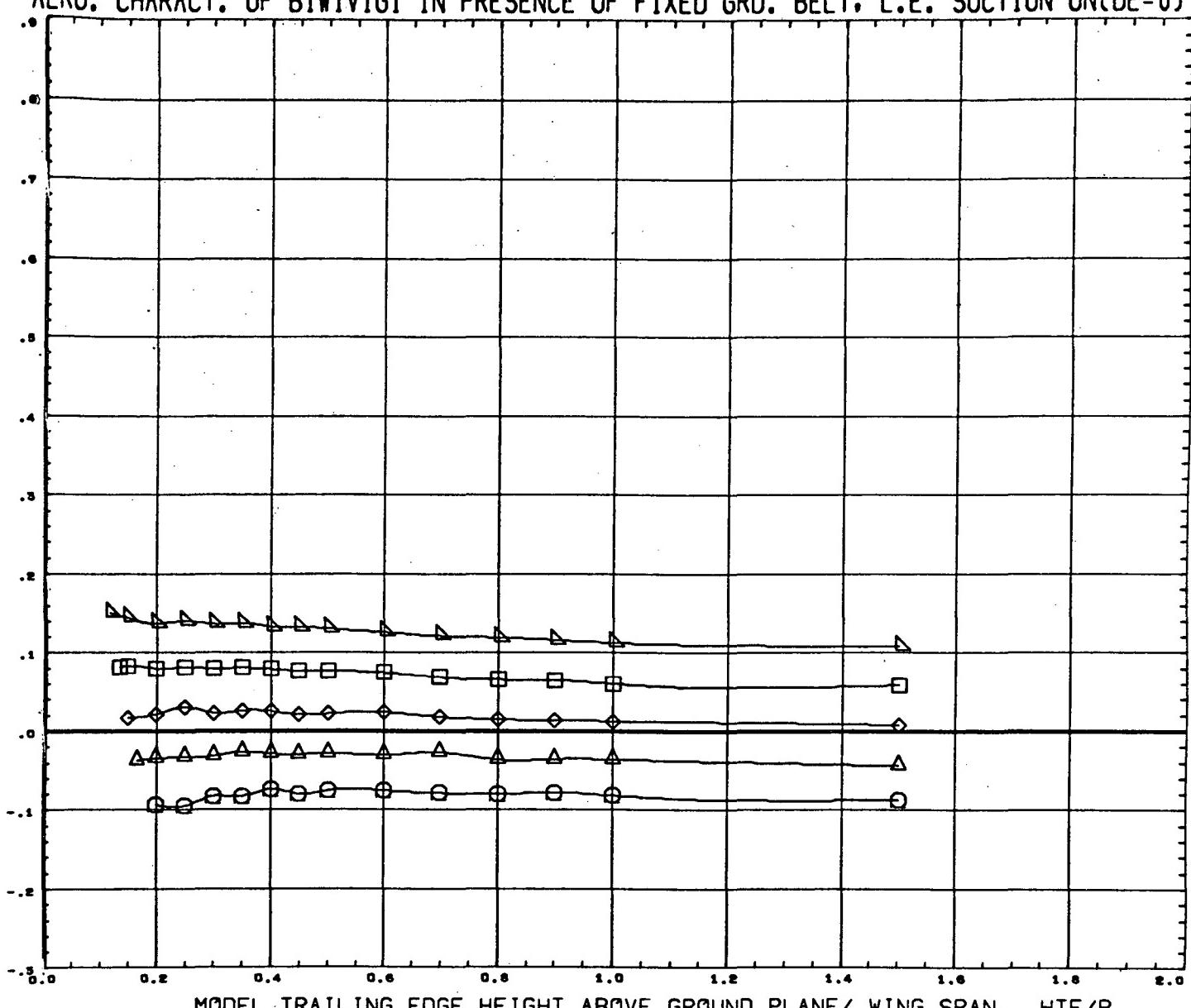
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AERO. CHARACT. OF B1W1V1G1 IN PRESENCE OF FIXED GRD. BELT, L.E. SUCTION ON(DEL=0)

PITCHING MOMENT COEFFICIENT, CLM



MODEL TRAILING EDGE HEIGHT ABOVE GROUND PLANE/ WING SPAN, HTE/B

SYMBOL	ALPHA	PARAMETRIC VALUES	
		ELVN-R	ELVN-L
○	- 4.000	0.000	0.000
○	- 2.050	0.000	0.000
◊	0.000		
△	1.970		
□	3.930		

REFERENCE FILE

REFERENCE INFORMATION		
SREF	7.8875	SQ.FT.
LREF	2.5400	FEET
BREF	3.6780	FEET
XMRP	75.7500	INCHES
YMRP	0.0000	INCHES
ZMRP	14.1100	INCHES
SCALE	0.0000	INCHES

LTV LSWT S-081 B1W1V1G1 (BELT STATIONARY)

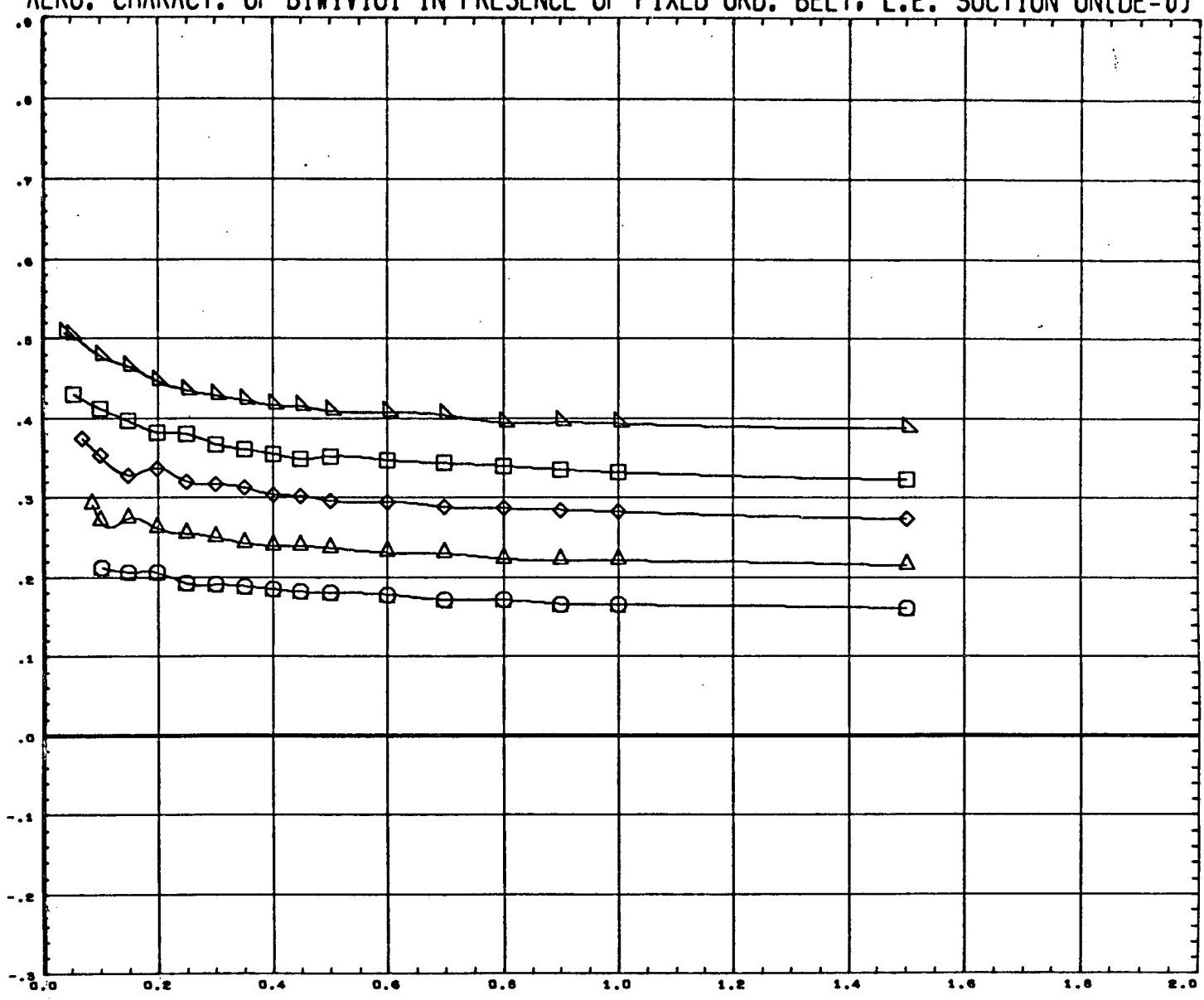
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AERO. CHARACT. OF BIW1V1G1 IN PRESENCE OF FIXED GRD. BELT, L.E. SUCTION ON(DEL=0)

PITCHING MOMENT COEFFICIENT, CLM



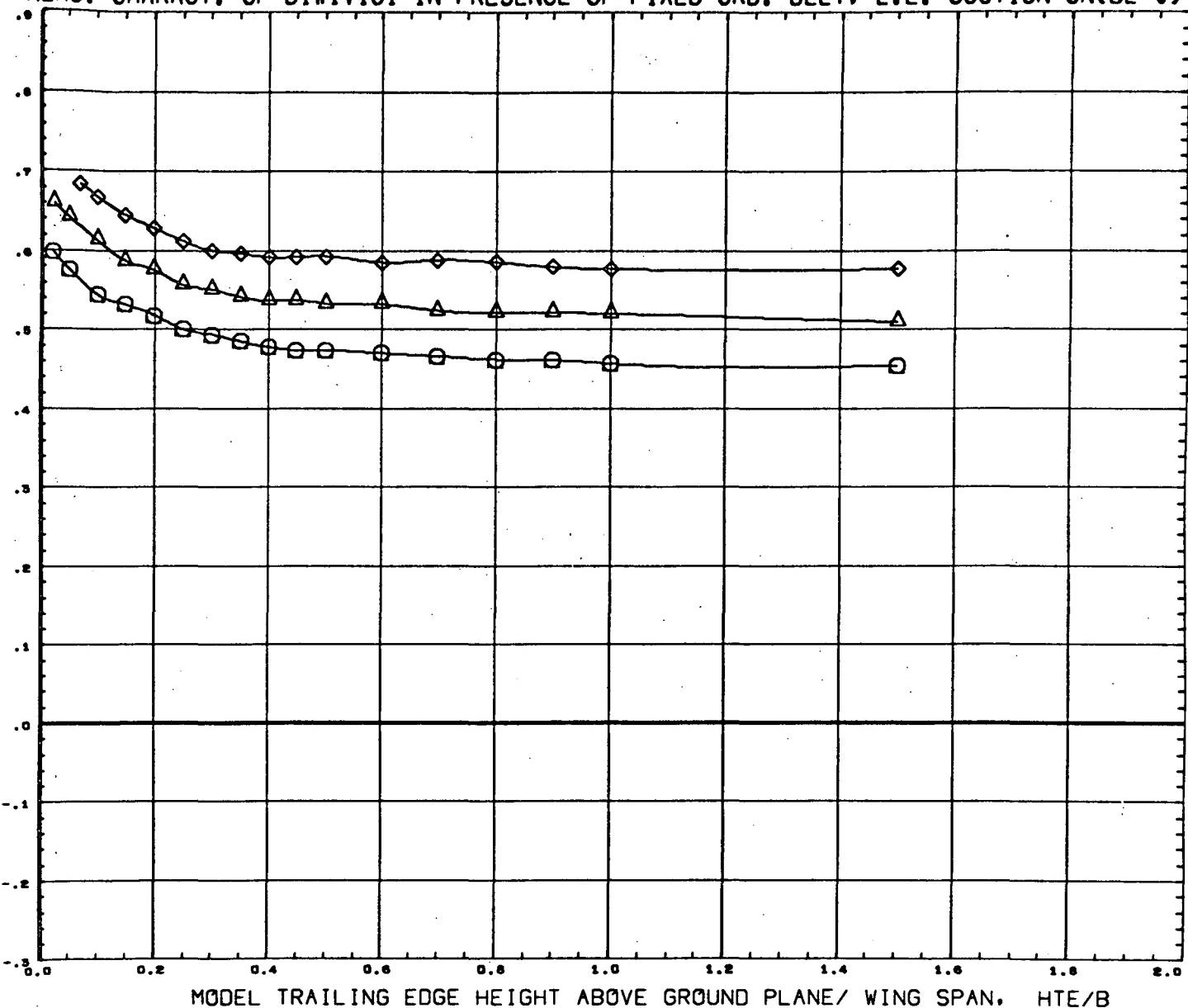
MODEL TRAILING EDGE HEIGHT ABOVE GROUND PLANE/ WING SPAN. HTE/B

SYMBOL	ALPHA	PARAMETRIC VALUES			
		ELVN-R	0.000	ELVN-L	0.000
○	6.000	ELEVON	0.000		
△	7.930				
◊	10.100				
□	11.900				
◇	13.970				

REFERENCE FILE

REFERENCE INFORMATION		
SREF	7.8875	SQ.FT.
LREF	2.5400	FEET
BREF	3.6780	FEET
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YMRP	0.0000	INCHES
ZMRP	14.1100	INCHES
SCALE	0.0000	

AERO. CHARACT. OF B1W1V1G1 IN PRESENCE OF FIXED GRD. BELT. L.E. SUCTION ON(COE=0)



MODEL TRAILING EDGE HEIGHT ABOVE GROUND PLANE/ WING SPAN. HTE/B

SYMBOL	ALPHA		PARAMETRIC VALUES		
	16.000	EVLN-R	0.000	EVLN-L	0.000
	16.000	ELEVON	0.000		
	20.070				

REFERENCE INFORMATION		
REF	7.8875	SQ.FT.
REF	2.5400	FEET
REF	3.8780	FEET
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MRP	0.0000	INCHES
MRP	14.1100	INCHES
CALE	0.0000	

## **REFERENCE FILE**

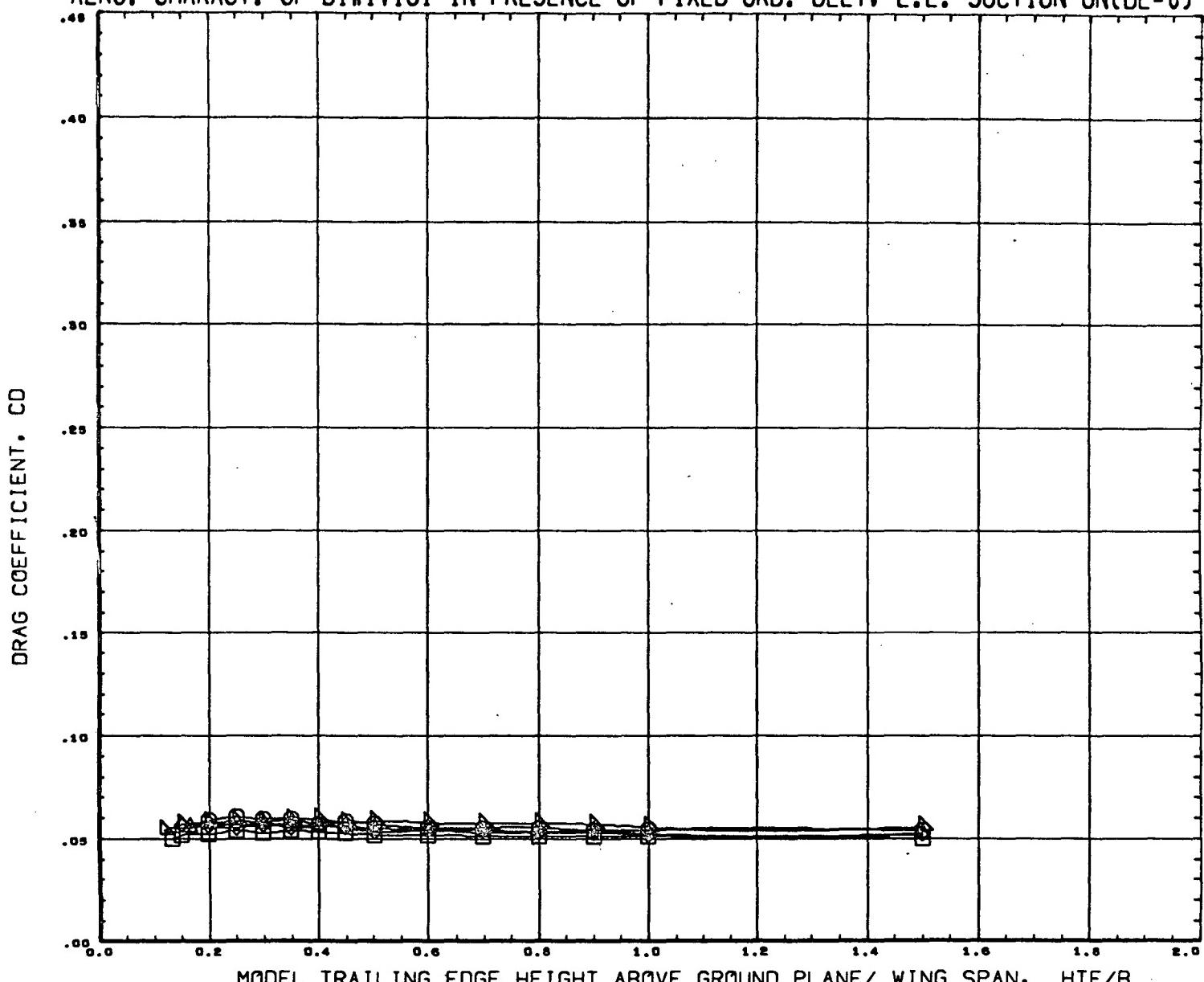
LTV LSWT S-081 B1W1V1G1 (BELT STATIONARY)

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AERO. CHARACT. OF B1W1V1G1 IN PRESENCE OF FIXED GRD. BELT, L.E. SUCTION ON(CDE=0)



MODEL TRAILING EDGE HEIGHT ABOVE GROUND PLANE/ WING SPAN. HTE/B

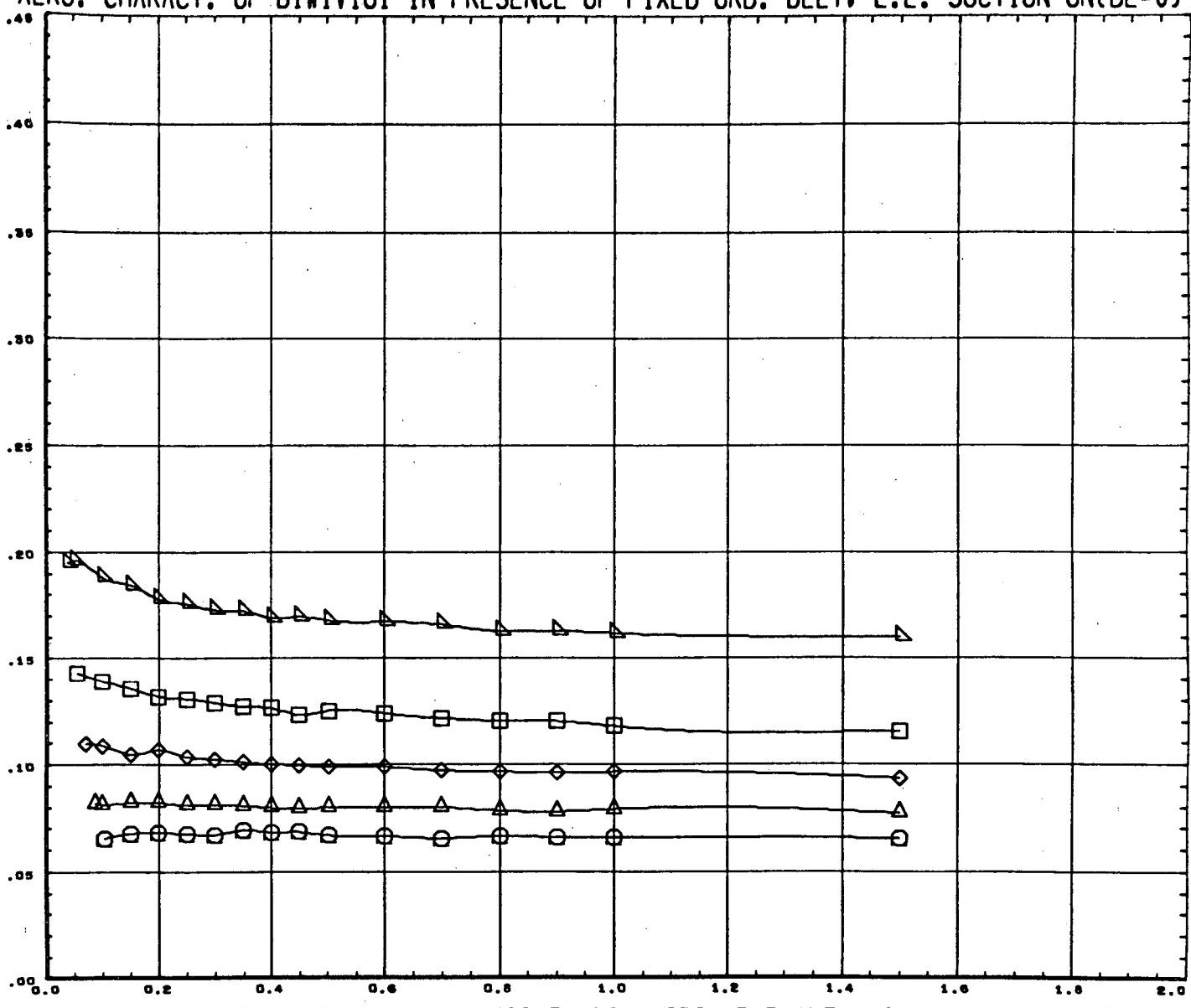
SYMBOL	ALPHA	PARAMETRIC VALUES		
		ELVN-R	ELVN-L	0.000
○	- 4.000	0.000	ELVN-L	0.000
△	- 2.050	ELEVON	0.000	
◊	0.000			
□	1.970			
▽	3.930			

REFERENCE FILE

REFERENCE INFORMATION		
SREF	7.8875	SG.FT.
LREF	2.5400	FEET
BREF	3.6780	FEET
XMRP	75.7500	INCHES
YMRP	0.0000	INCHES
ZMRP	14.1100	INCHES
SCALE	0.0000	

AERO. CHARACT. OF B1W1V1G1 IN PRESENCE OF FIXED GRD. BELT. L.E. SUCTION ON(DE=0)

DRAG COEFFICIENT. CD



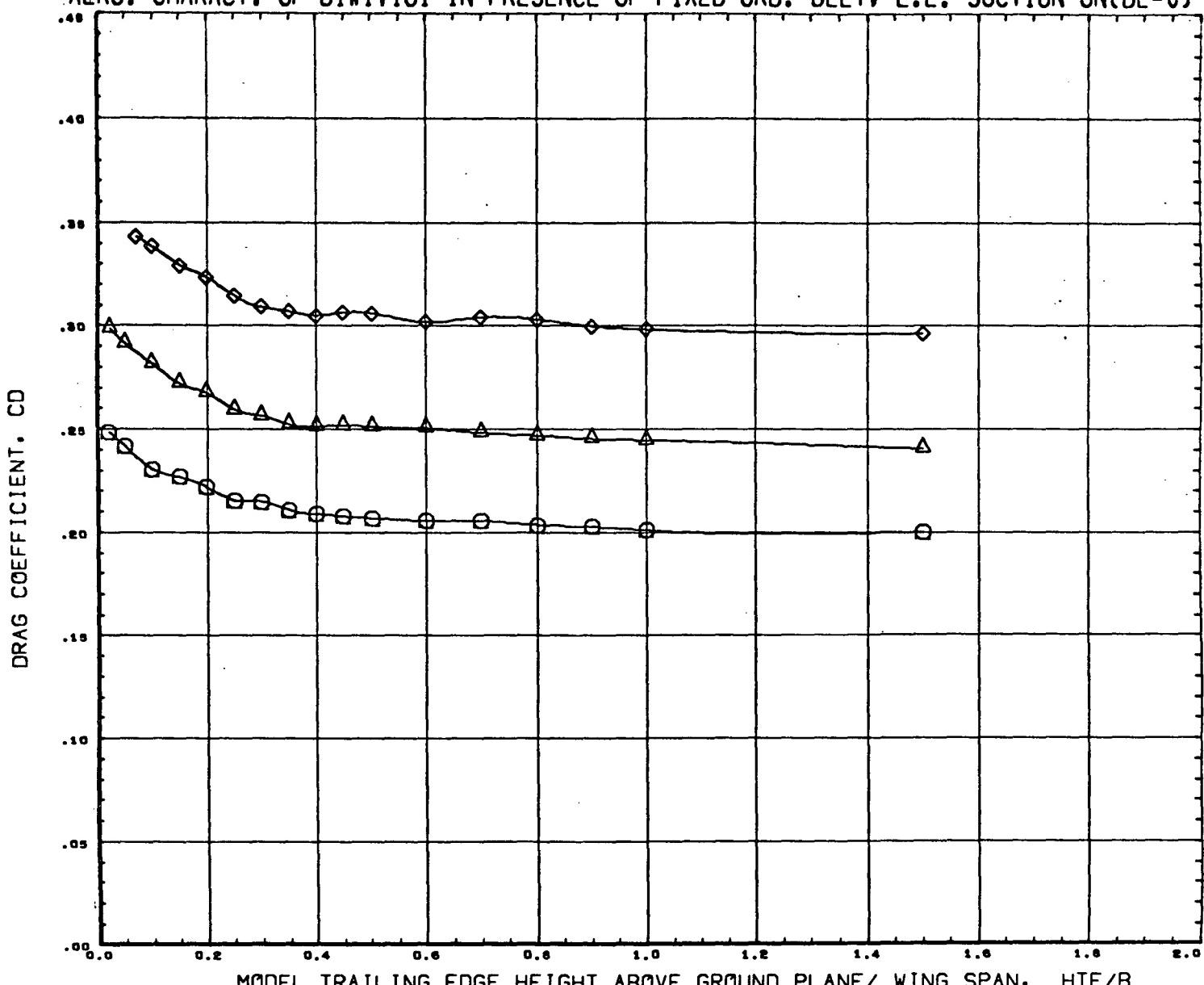
MODEL TRAILING EDGE HEIGHT ABOVE GROUND PLANE/ WING SPAN. HTE/B

SYMBOL	ALPHA	PARAMETRIC VALUES		
		ELVN-R	ELVN-L	0.000
○	6.000			
△	7.930	ELEVON	0.000	
◊	10.100			
□	11.900			
▽	13.970			

REFERENCE FILE

REFERENCE INFORMATION		
SREF	7.8675	SQ.FT.
LREF	2.5400	FEET
BREF	3.6780	FEET
XMRP	75.7500	INCHES
YMRP	0.0000	INCHES
ZMRP	14.1100	INCHES
SCALE	0.0000	

AERO. CHARACT. OF B1W1V1G1 IN PRESENCE OF FIXED GRD. BELT, L.E. SUCTION ON(CD=0)



MODEL TRAILING EDGE HEIGHT ABOVE GROUND PLANE/ WING SPAN, HTE/B

SYMBOL	ALPHA	PARAMETRIC VALUES		
		ELVN-R	ELVN-L	0.000
○	16.000	0.000	0.000	0.000
△	16.000	0.000	0.000	0.000
◊	20.070			

REFERENCE INFORMATION		
SREF	7.8875	39.FT.
LREF	2.5400	FEET
BREF	3.6780	FEET
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YMRP	0.0000	INCHES
ZMRP	14.1100	INCHES
SCALE	0.0000	

REFERENCE FILE

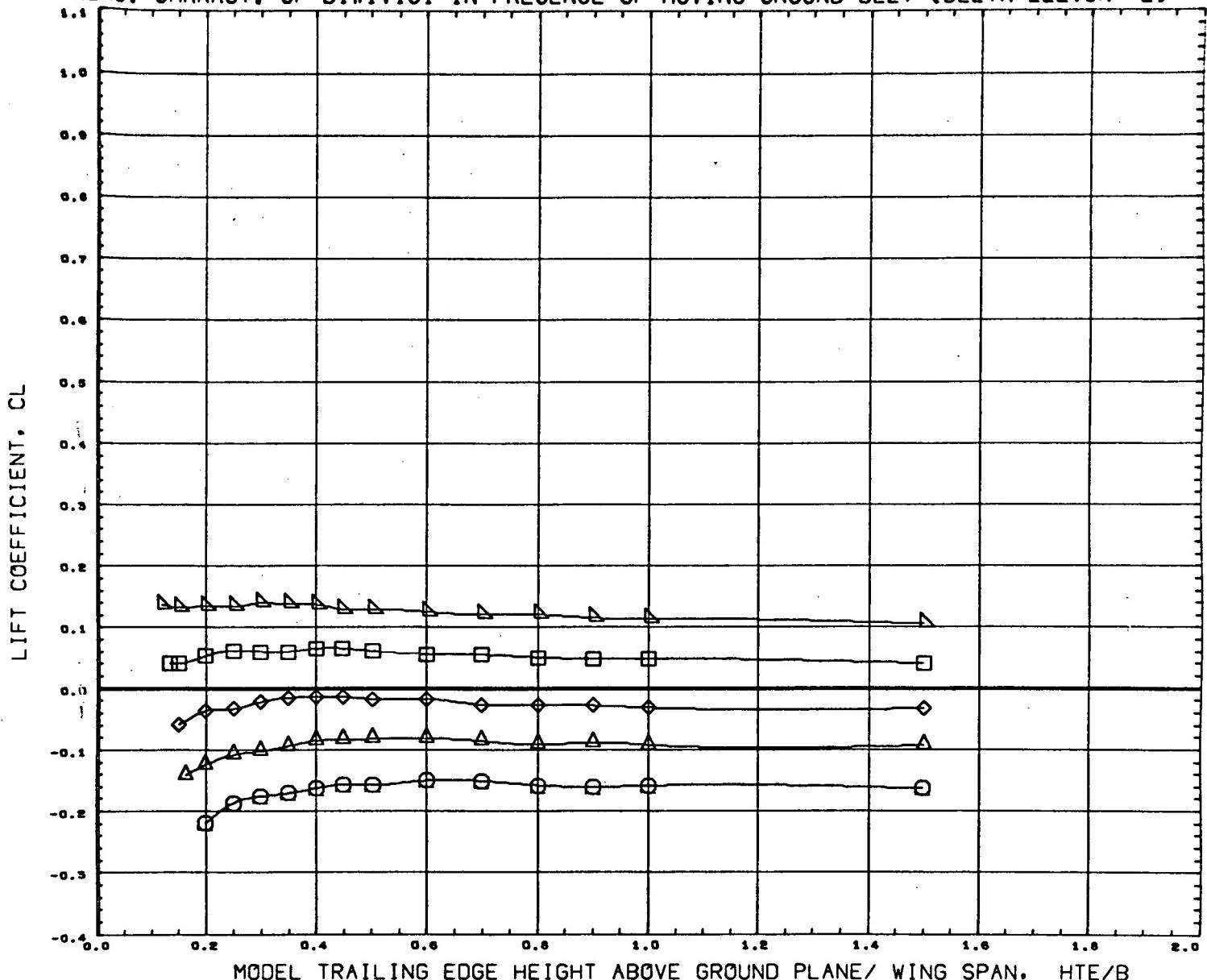
LTV LSWT S-081 B1W1V1G1 (BELT STATIONARY)

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AERO. CHARACT. OF BIW1V1G1 IN PRESENCE OF MOVING GROUND BELT (DELTA ELEVON=-2)



MODEL TRAILING EDGE HEIGHT ABOVE GROUND PLANE/ WING SPAN. HTE/B

SYMBOL	ALPHA	PARAMETRIC VALUES					
		-	ELVN-R	-	ELVN-L	-	2.000
○	- 4.000						
△	- 2.050	ELEVON	-	2.000			
◊	0.000						
□	1.970						
▽	3.950						

REFERENCE INFORMATION		
EF	7.8875	SQ.FT.
EF	8.5400	FEET
EF	3.6780	FEET
RP	75.7500	INCHES
RP	0.0000	INCHES
RP	14.1100	INCHES
ALE	0.0000	

## **REFERENCE FILE**

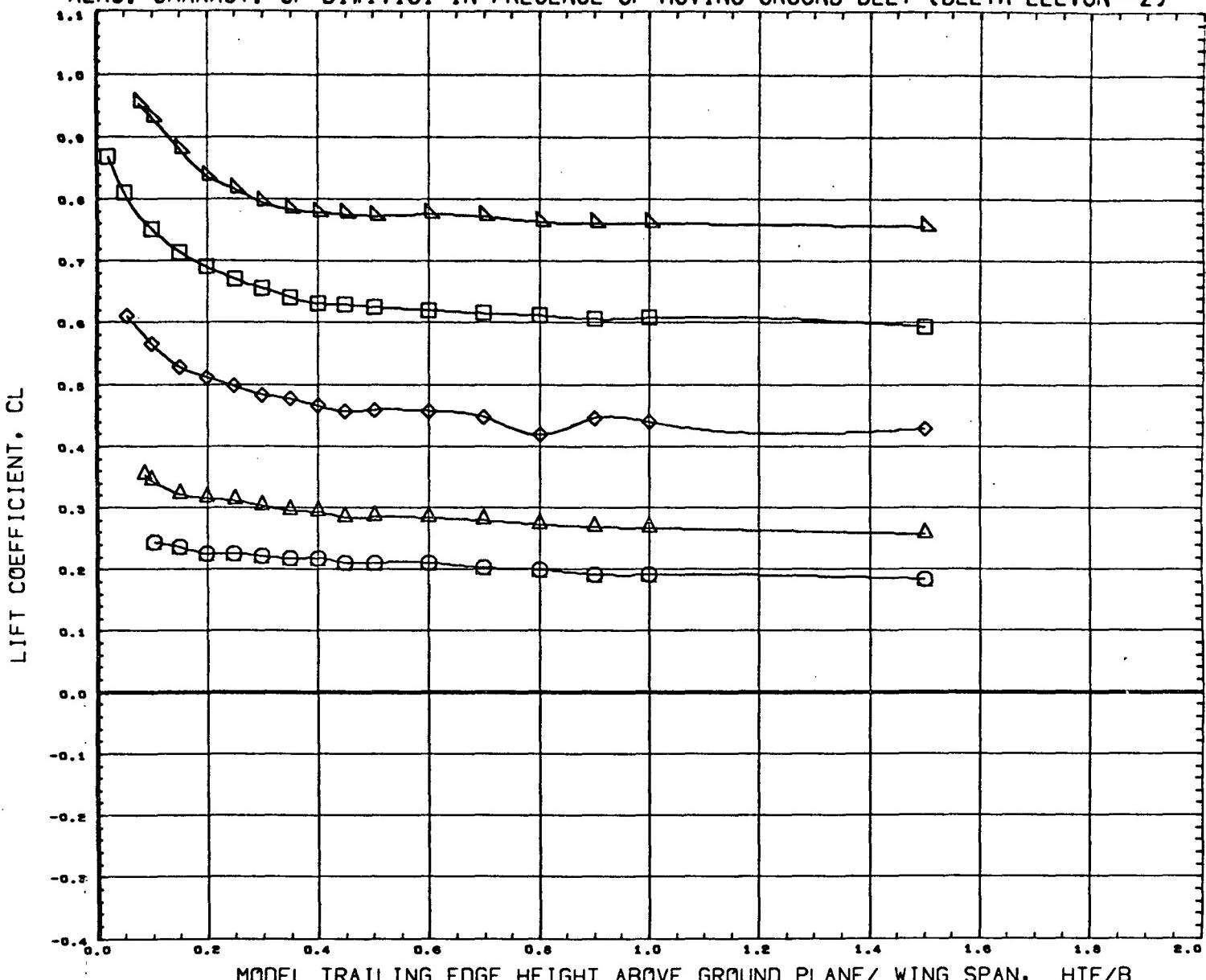
LTV LSWT S-081 B1W1V1G1 (BELT MOVING)

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AERO. CHARACT. OF B1W1V1G1 IN PRESENCE OF MOVING GROUND BELT (DELTA ELEVON=-2)



MODEL TRAILING EDGE HEIGHT ABOVE GROUND PLANE/ WING SPAN, HTE/B

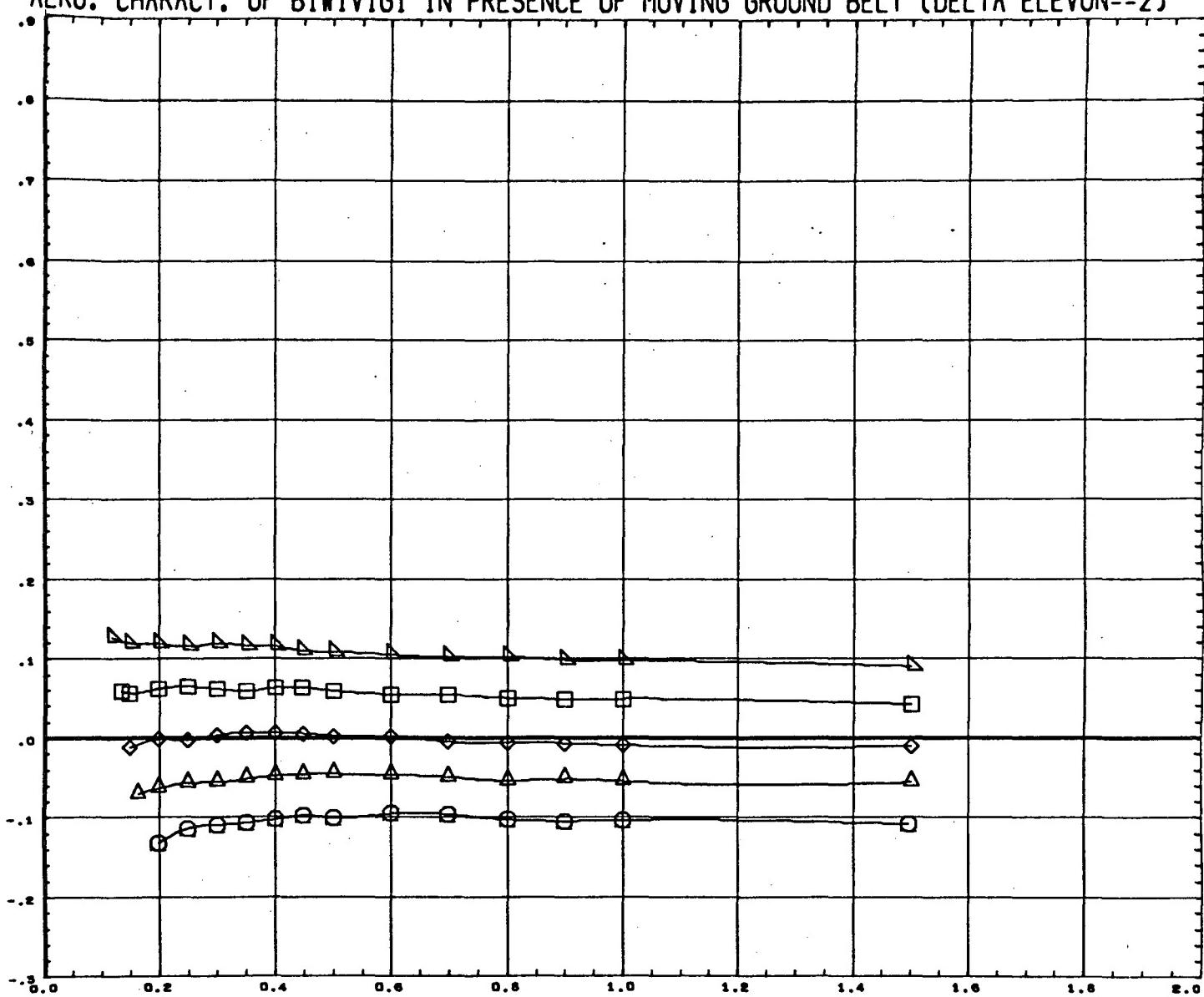
SYMBOL	ALPHA	PARAMETRIC VALUES	
		ELVN-R	ELVN-L
○	6.000	- 2.000	- 2.000
△	7.930	- 2.000	- 2.000
◊	11.900		
□	16.000		
	20.070		

REFERENCE FILE

REFERENCE INFORMATION		
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BREF	5.8780	FEET
XMRP	75.7500	INCHES
YMRP	0.0000	INCHES
ZMRP	14.1100	INCHES
SCALE	0.0000	

AERO. CHARACT. OF B1W1V1G1 IN PRESENCE OF MOVING GROUND BELT (DELTA ELEVON=-2)

PITCHING MOMENT COEFFICIENT. CLM



MODEL TRAILING EDGE HEIGHT ABOVE GROUND PLANE/ WING SPAN. HTE/B

SYMBOL	ALPHA	PARAMETRIC VALUES	
		ELVN-R	ELVN-L
○	- 4.000	- 2.000	ELVN-L - 2.000
△	- 2.050	ELEVON	- 2.000
◊	0.000		
□	1.970		
	3.930		

REFERENCE FILE

REFERENCE INFORMATION		
SREF	7.8875	SQ.FT.
LREF	2.5400	FEET
BREF	3.6780	FEET
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YMRP	0.0000	INCHES
ZMRP	14.1100	INCHES
SCALE	0.0000	

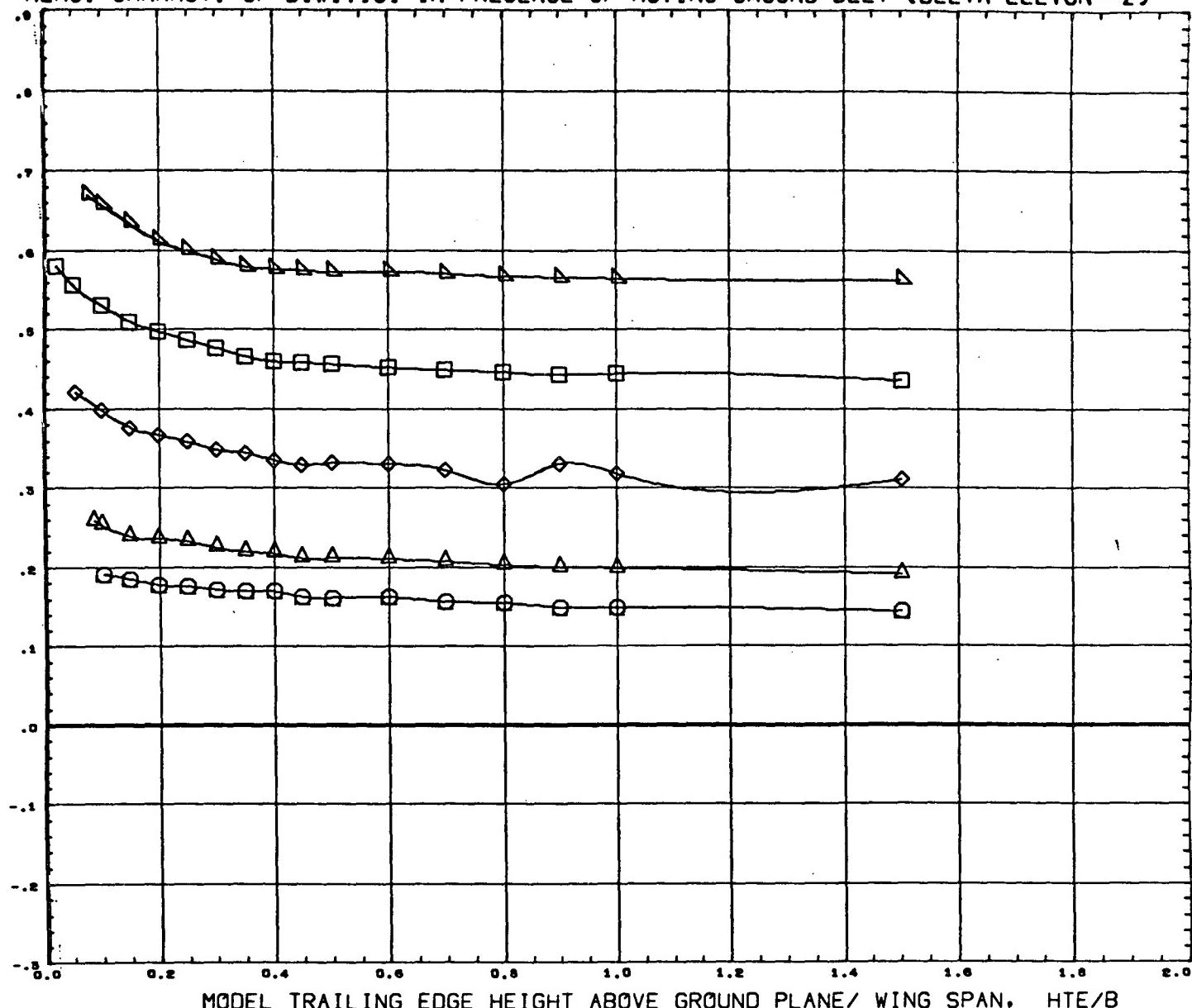
LTV LSWT S-081 B1W1V1G1 (BELT MOVING)

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AERO. CHARACT. OF B1W1V1G1 IN PRESENCE OF MOVING GROUND BELT (DELTA ELEVON=-2)

PITCHING MOMENT COEFFICIENT, CLM



MODEL TRAILING EDGE HEIGHT ABOVE GROUND PLANE/ WING SPAN. HTE/B

SYMBOL	ALPHA	PARAMETRIC VALUES	
		ELVN-R	ELVN-L
○	6.000	- 2.000	- 2.000
△	7.930	- 2.000	- 2.000
◊	11.900		
□	16.000		
■	20.070		

REFERENCE FILE

REFERENCE INFORMATION		
SREF	7.8875	SG.FT.
LREF	2.5400	FEET
BREF	3.6780	FEET
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YMRP	0.0000	INCHES
ZMRP	14.1100	INCHES
SCALE	0.0000	

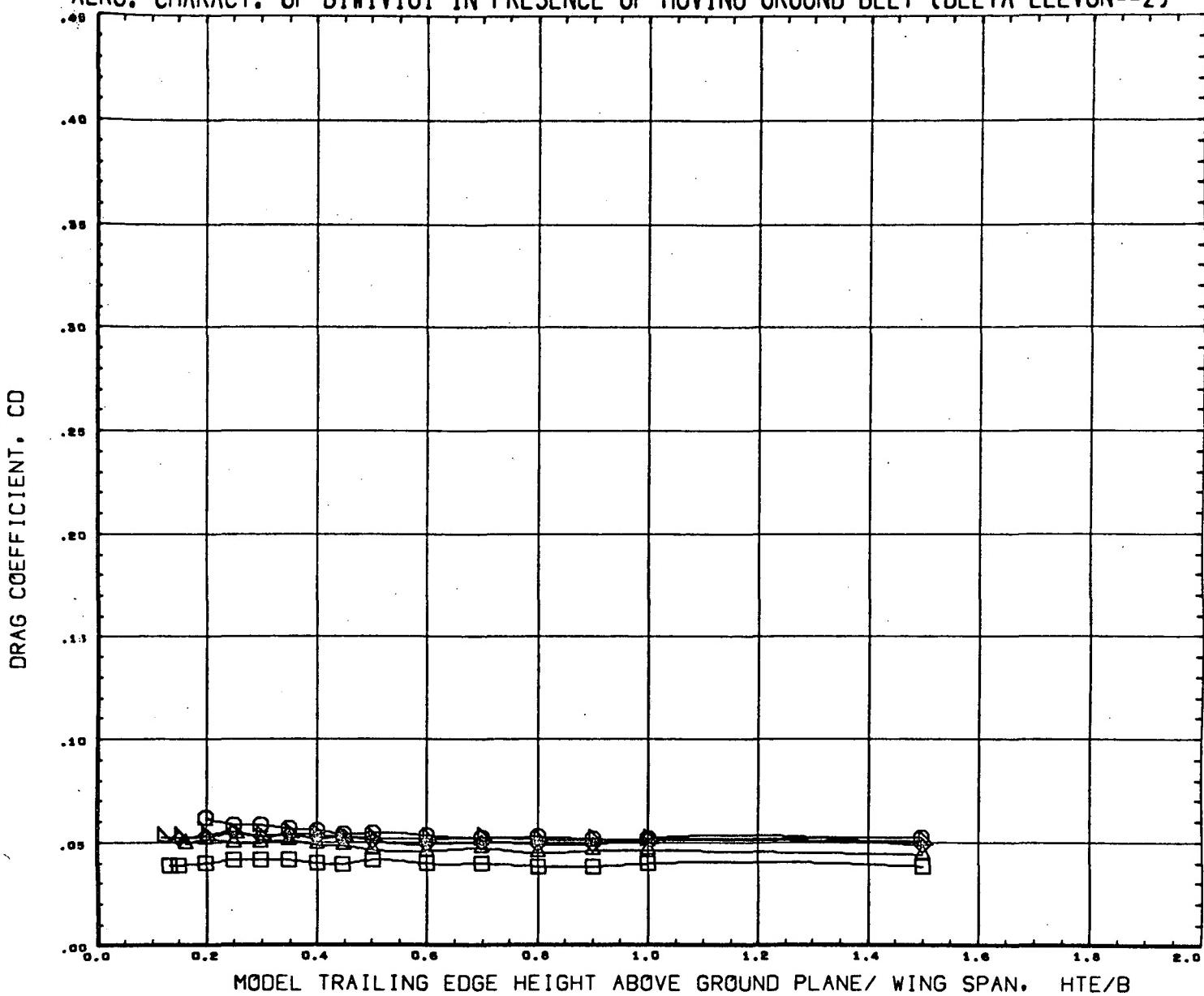
LTV LSWT S-081 B1W1V1G1 (BELT MOVING)

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AERO. CHARACT. OF BIW1V1G1 IN PRESENCE OF MOVING GROUND BELT (DELTA ELEVON=-2)



SYMBOL	ALPHA	PARAMETRIC VALUES		
○	- 4.000	ELVN-R	- 2.000	ELVN-L - 2.000
△	- 2.050	ELEVON	- 2.000	
◊	0.000			
□	1.970			
▢	3.930			

REFERENCE INFORMATION		
EF	7.8875	SQ.FT.
EF	2.5400	FEET
EF	3.6780	FEET
RP	75.7500	INCHES
RP	0.0000	INCHES
RP	14.1100	INCHES
ALE	0.0000	

REFERENCE FILE

LTV LSWT S-081 B1W1V1G1 (BELT MOVING)

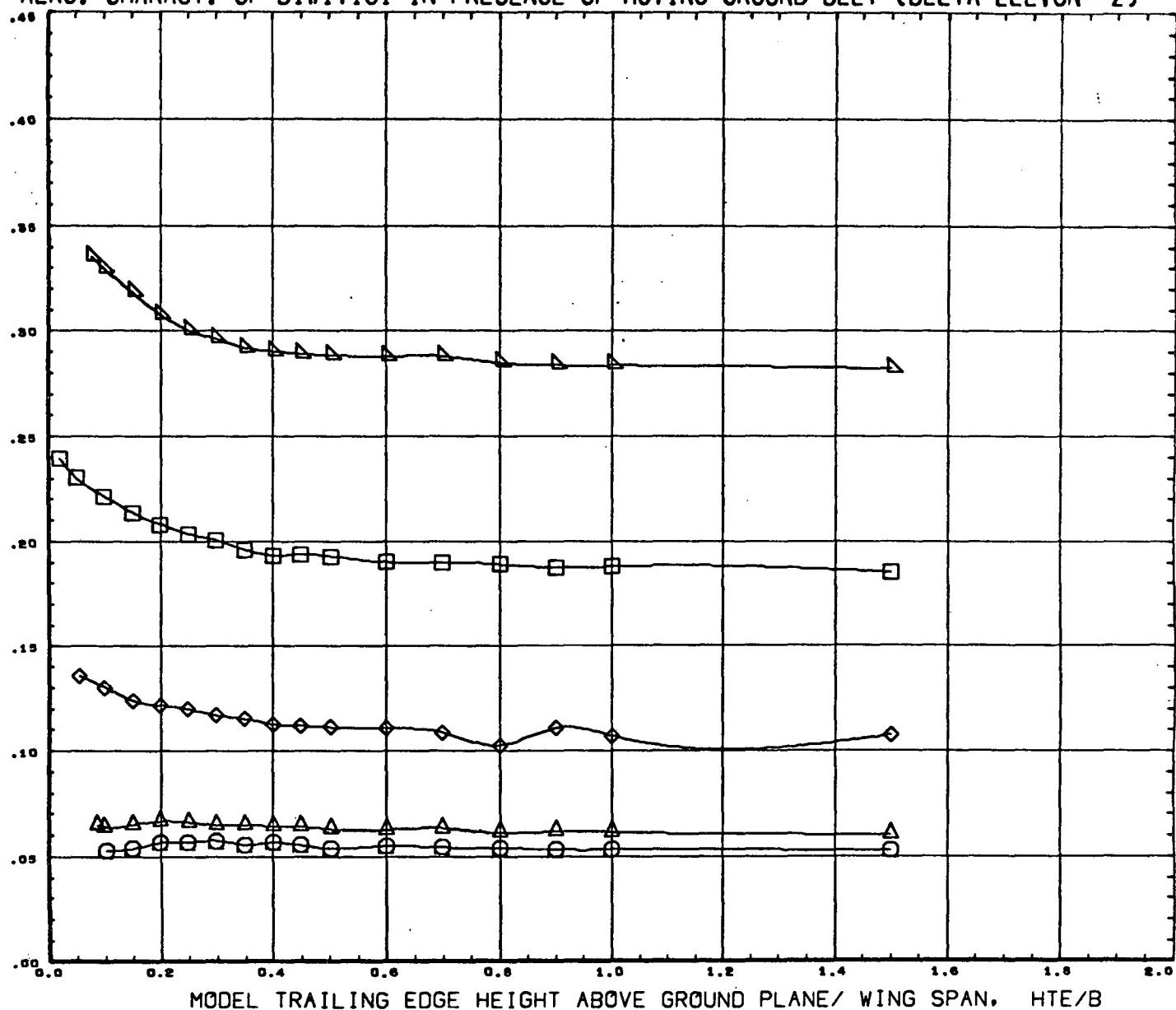
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AERO. CHARACT. OF B1W1V1G1 IN PRESENCE OF MOVING GROUND BELT (DELTA ELEVON=-2)

DRA.G COEFFICIENT. CD



MODEL TRAILING EDGE HEIGHT ABOVE GROUND PLANE/ WING SPAN. HTE/B

SYMBOL	ALPHA	PARAMETRIC VALUES		REFERENCE INFORMATION		
		ELVN-R	ELVN-L	SREF	7.6875	SQ.FT.
△	0.000	- 2.000	- 2.000	LREF	2.5400	FEET
◇	7.950	ELEVON	- 2.000	BREF	3.6760	FEET
□	11.900			XMRP	79.7500	INCHES
◆	16.000			YMRP	0.0000	INCHES
○	20.070			ZMRP	14.1100	INCHES
				SCALE	0.0000	

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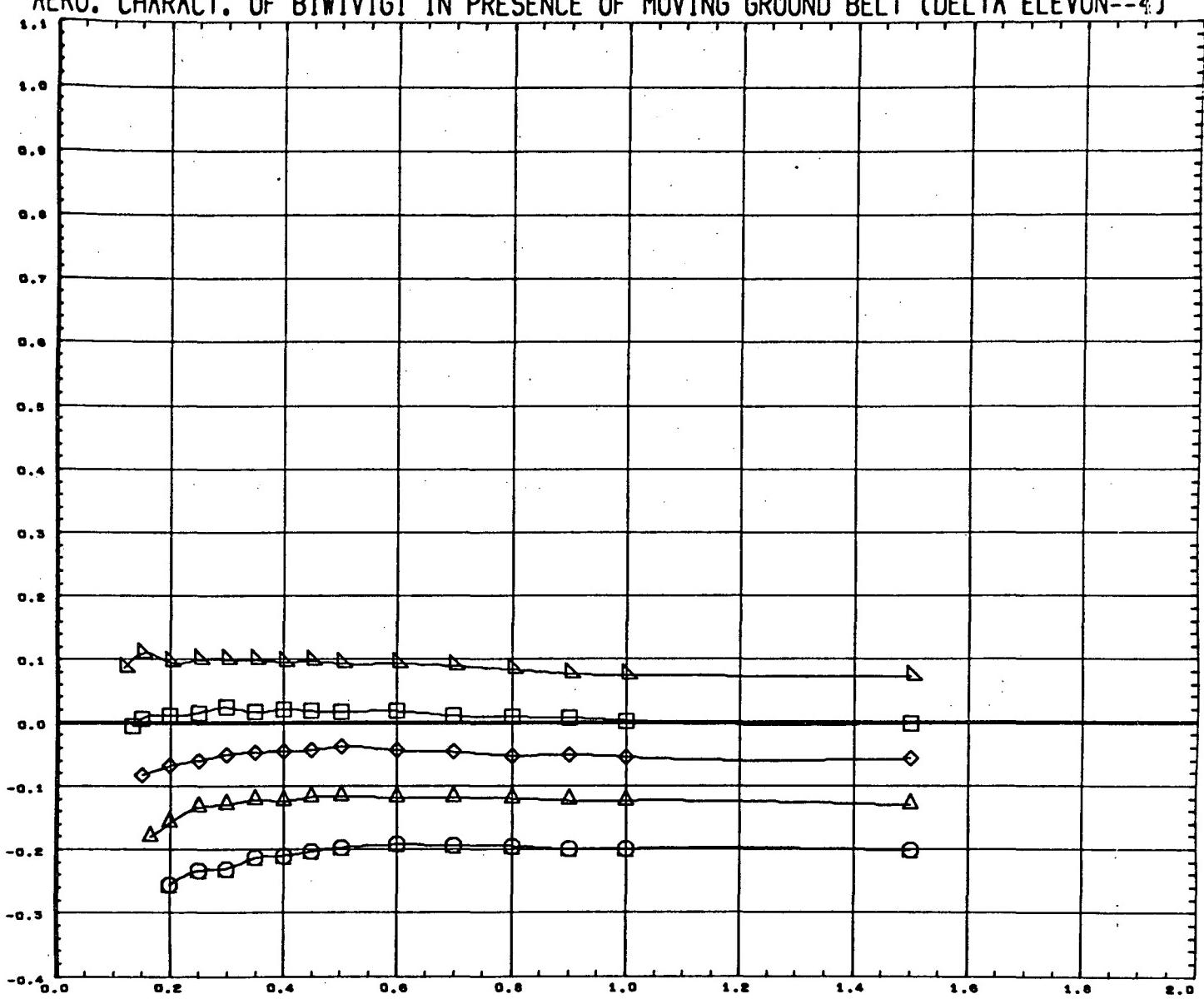
(R00005) 07 NOV 72

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AERO. CHARACT. OF B1W1V1G1 IN PRESENCE OF MOVING GROUND BELT (DELTA ELEVON=-4)

LIFT COEFFICIENT. CL



MODEL TRAILING EDGE HEIGHT ABOVE GROUND PLANE/ WING SPAN. HTE/B

SYMBOL	ALPHA	PARAMETRIC VALUES	
$\circ$	- 4.000	ELVN-R	- 4.000 ELVN-L - 4.000
$\triangle$	- 2.050	ELEVON	- 4.000
$\diamond$	0.000		
$\square$	1.970		
	3.930		

REFERENCE FILE

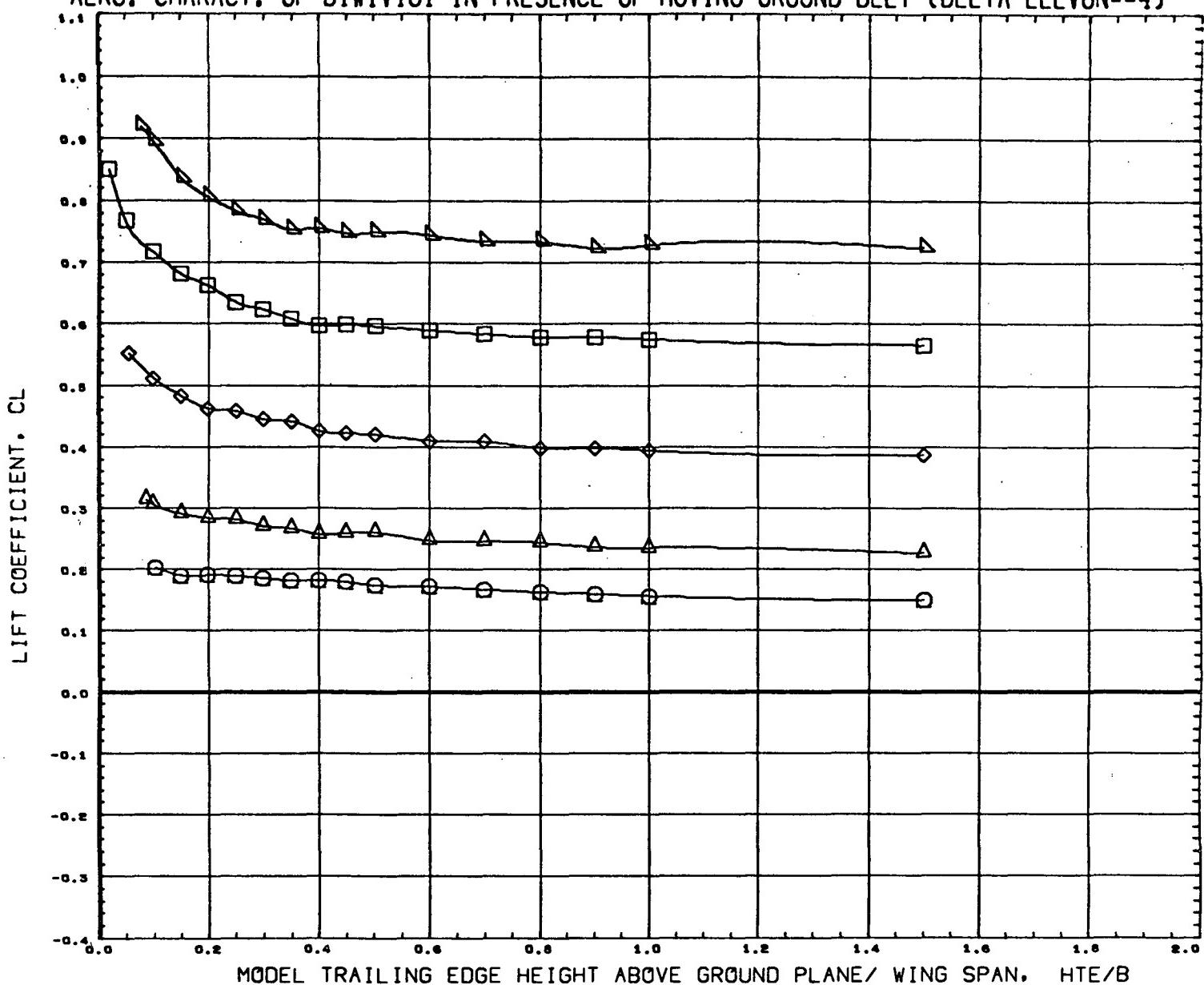
REFERENCE INFORMATION		
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BREF	5.8780	FEET
XMRP	75.7500	INCHES
YMRP	0.0000	INCHES
ZMRP	14.1100	INCHES
SCALE	0.0000	

LTV LSWT S-081 B1W1V1G1 (BELT MOVING)

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AERO. CHARACT. OF B1W1V1G1 IN PRESENCE OF MOVING GROUND BELT (DELTA ELEVON=-4)



REFERENCE FILE

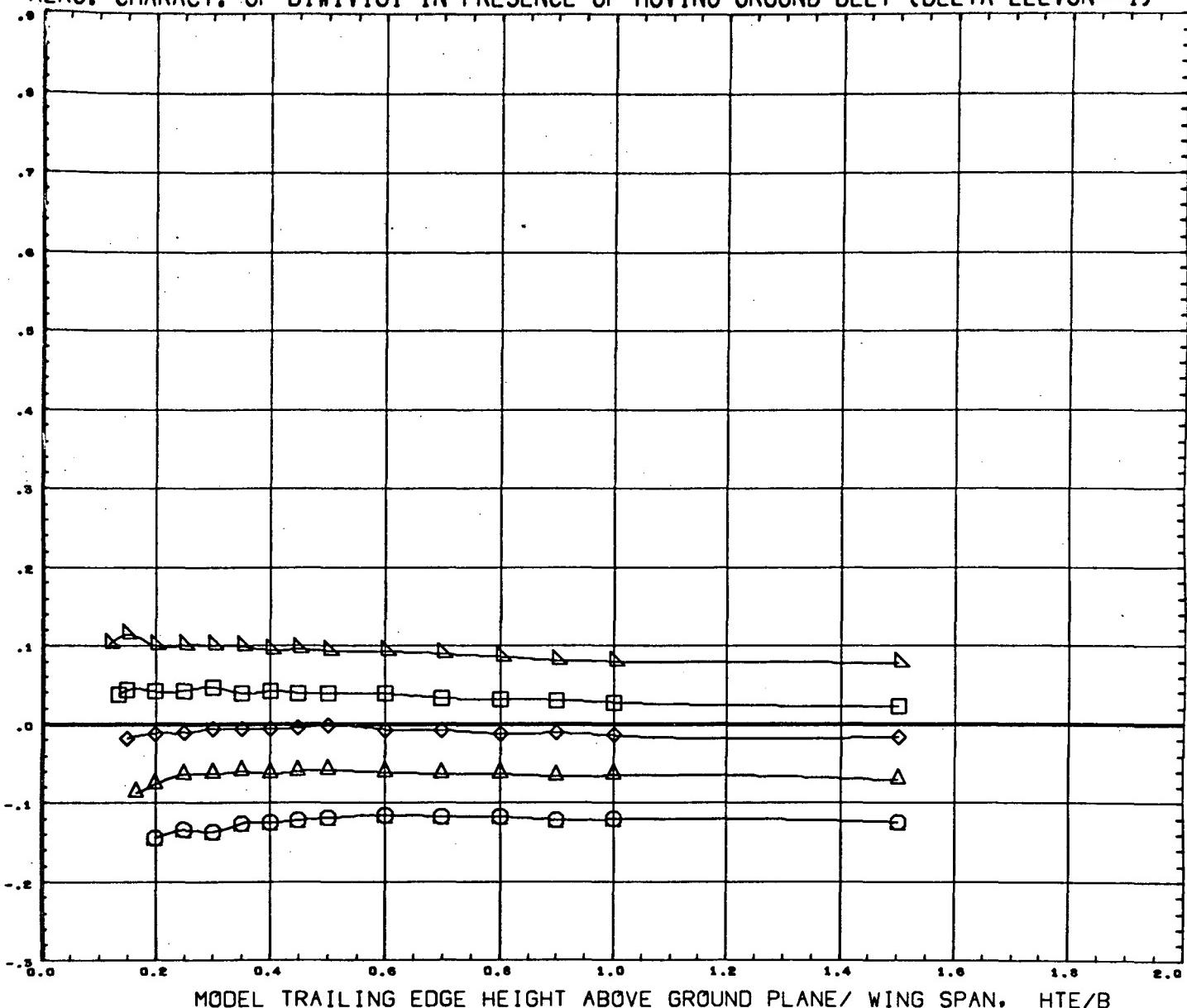
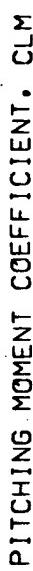
LTV LSWT S-081 B1W1V1G1 (BELT MOVING)

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SREF	7.8875	SQ.FT.
LREF	2.5400	FEET
BREF	3.8780	FEET
XMRP	75.7500	INCHES
YMRP	0.0000	INCHES
ZMRP	14.1100	INCHES
SCALE	0.0000	INCHES

AERO. CHARACT. OF B1W1V1G1 IN PRESENCE OF MOVING GROUND BELT (DELTA ELEVON=-4)



MODEL TRAILING EDGE HEIGHT ABOVE GROUND PLANE/ WING SPAN. HTE/B

SYMBOL	ALPHA	PARAMETRIC VALUES		
	- 4.000	ELVN-R	- 4.000	ELVN-L
	- 2.050	ELEVON	- 4.000	
	0.000			
	1.970			
	3.930			

REFERENCE FILE

REFERENCE INFORMATION		
EF	7.8875	SQ.FT.
EF	2.5400	FEET
EF	3.8760	FEET
RP	75.7500	INCHES
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RP	14.1100	INCHES
ALE	0.0000	INCHES

LTV LSWT S-081 B1W1V1G1 (BELT MOVING)

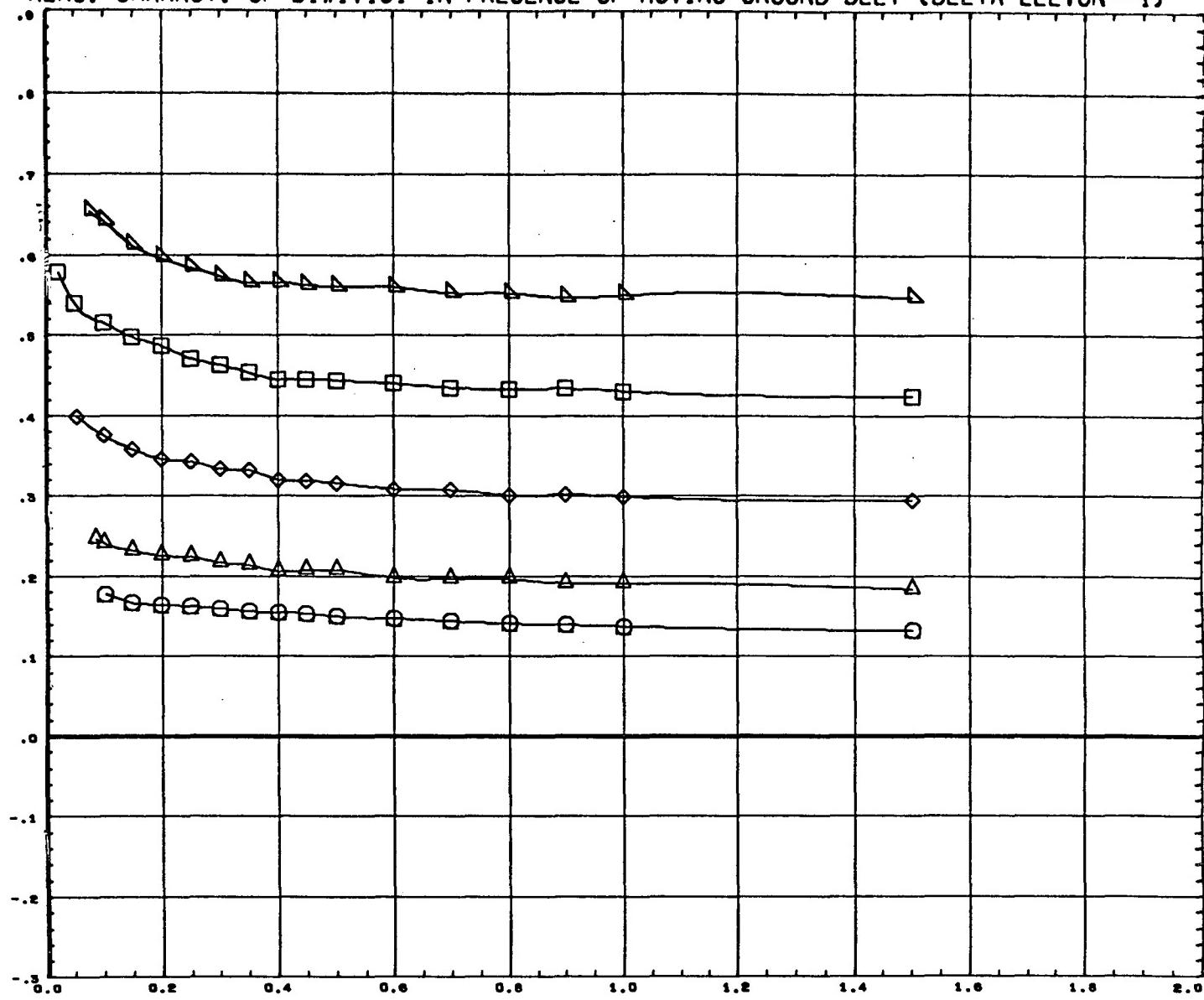
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AERO. CHARACT. OF B1W1V1G1 IN PRESENCE OF MOVING GROUND BELT (DELTA ELEVON=-4)

PITCHING MOMENT COEFFICIENT. CLM



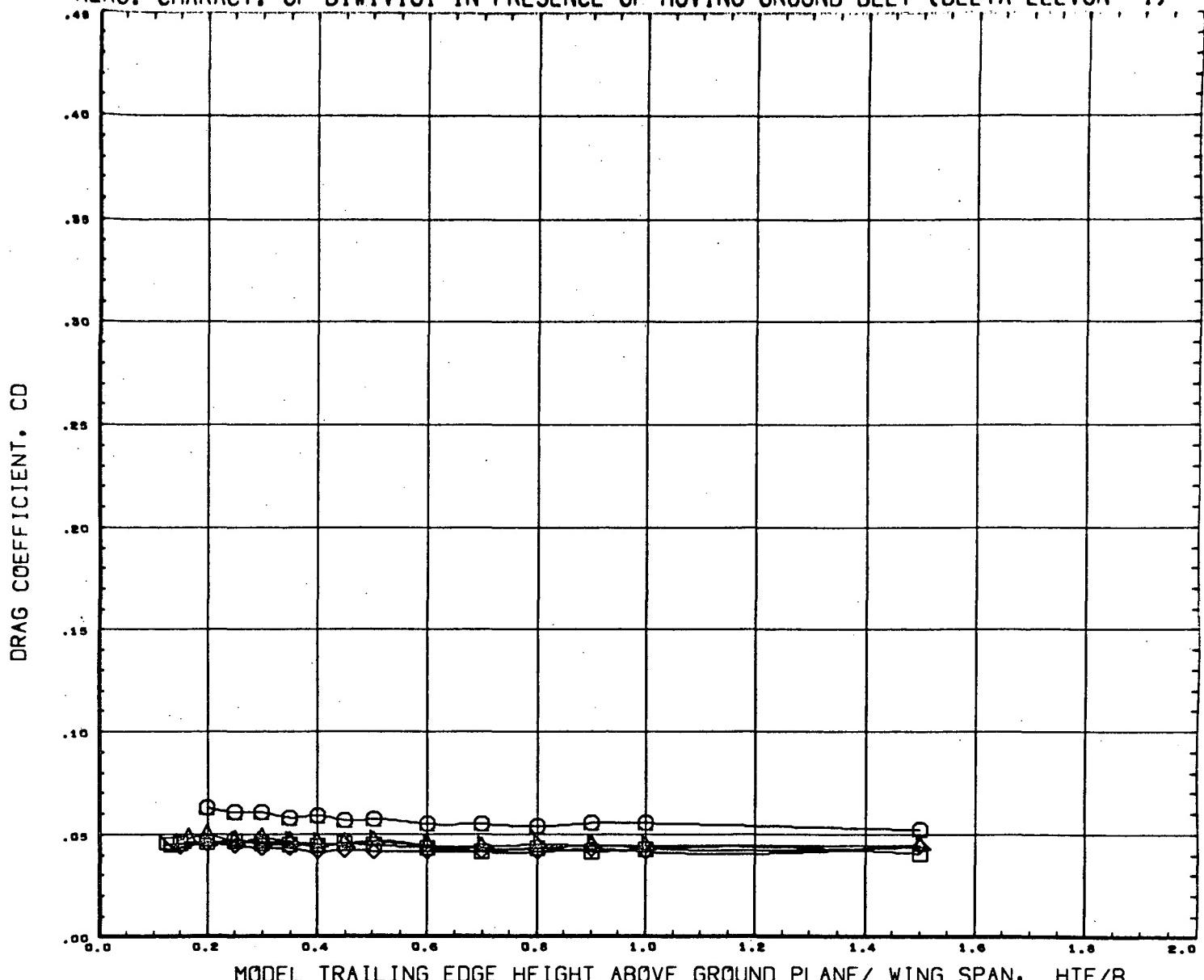
MODEL TRAILING EDGE HEIGHT ABOVE GROUND PLANE/ WING SPAN. HTE/B

SYMBOL	ALPHA	PARAMETRIC VALUES	
		ELVN-R	ELVN-L
○	6.000	- 4.000	- 4.000
△	7.930	- 4.000	
◊	11.900		
□	16.000		
□	20.070		

REFERENCE FILE

REFERENCE INFORMATION		
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LREF	2.5400	FEET
BREF	3.6760	FEET
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YMRP	0.0000	INCHES
ZMRP	14.1100	INCHES
SCALE	0.0000	

AERO. CHARACT. OF B1W1V1G1 IN PRESENCE OF MOVING GROUND BELT (DELTA ELEVON=4)



MODEL TRAILING EDGE HEIGHT ABOVE GROUND PLANE/ WING SPAN. HTE/B

SYMBOL	ALPHA	PARAMETRIC VALUES		
	- 4.000	ELVN-R	- 4.000	ELVN-L - 4.000
	- 2.050	ELEVON	- 4.000	
	0.000			
	1.970			
	3.950			

REFERENCE FILE

REFERENCE INFORMATION		
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IRP	14.1100	INCHES
CALE	0.0000	

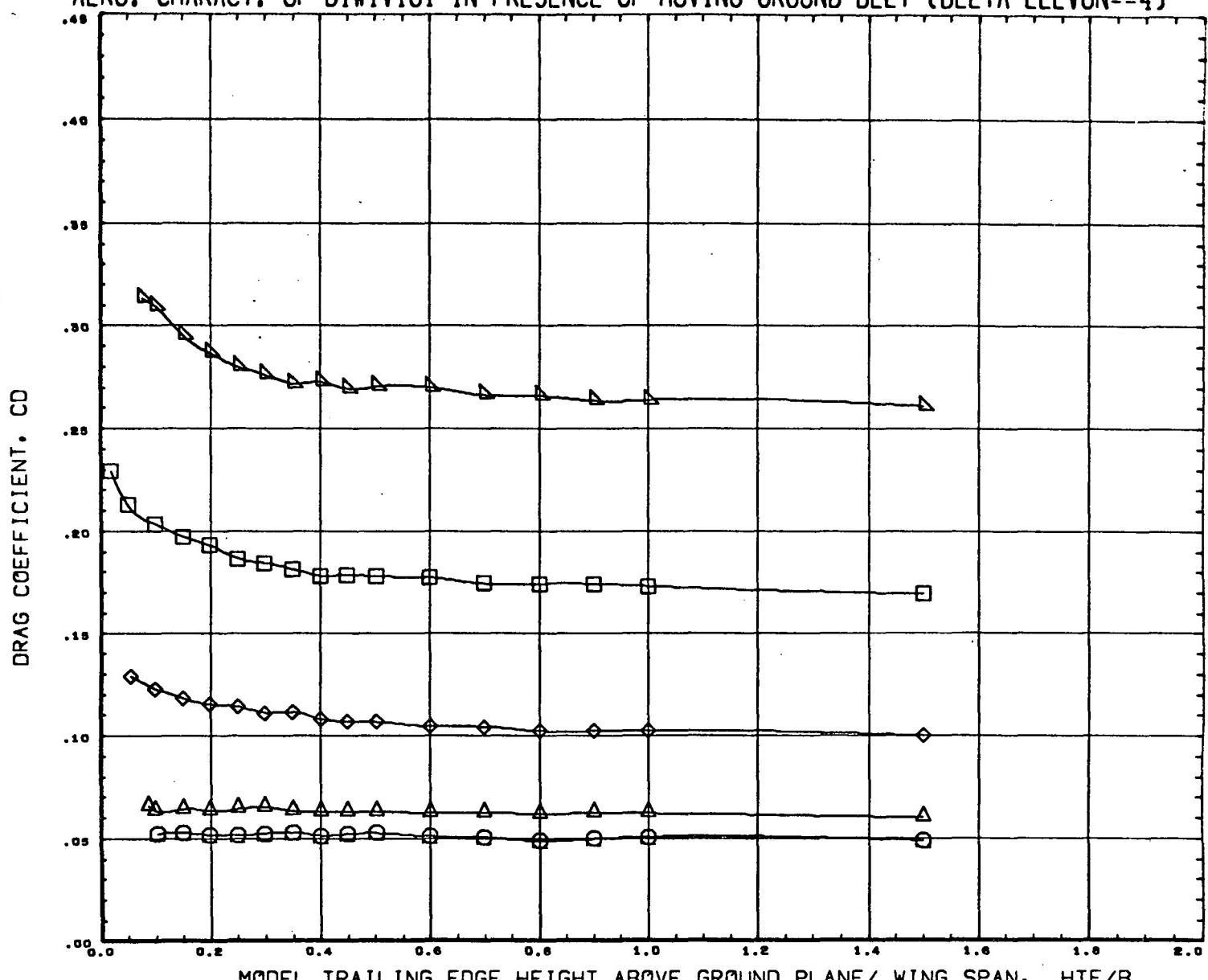
LTV LSWT S-081 B1W1V1G1 (BELT MOVING)

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AERO. CHARACT. OF B1W1V1G1 IN PRESENCE OF MOVING GROUND BELT (DELTA ELEVON=-4)



MODEL TRAILING EDGE HEIGHT ABOVE GROUND PLANE/ WING SPAN, HTE/B

SYMBOL	ALPHA	PARAMETRIC VALUES	
		ELVN-R	ELVN-L
○	6.000	4.000	4.000
△	7.930	4.000	4.000
◊	11.900	-	-
□	16.000	-	-
▽	20.070	-	-

REFERENCE FILE

REFERENCE INFORMATION		
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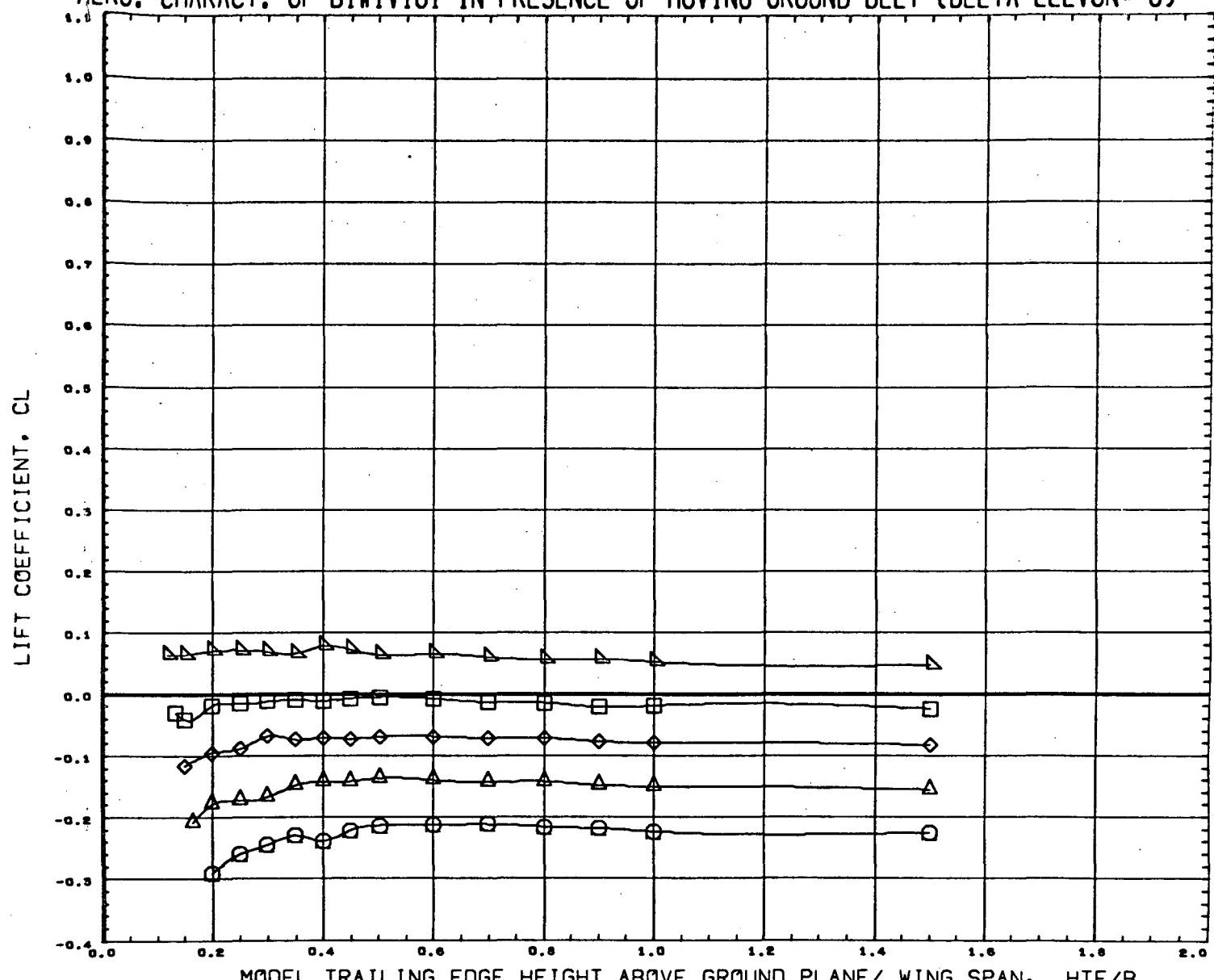
LTV LSWT S-081 B1W1V1G1 (BELT MOVING)

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AERO. CHARACT. OF B1W1V1G1 IN PRESENCE OF MOVING GROUND BELT (DELTA ELEVON=-6)



SYMBOL	ALPHA	PARAMETRIC VALUES		
○	- 4.000	ELVN-R	- 6.000	ELVN-L - 6.000
△	- 2.050	ELEVON	- 6.000	
◊	0.000			
□	1.970			
▽	3.930			

**REFERENCE FILE**

REFERENCE INFORMATION		
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RP	14.1100	INCHES
ALE	0.0000	INCHES

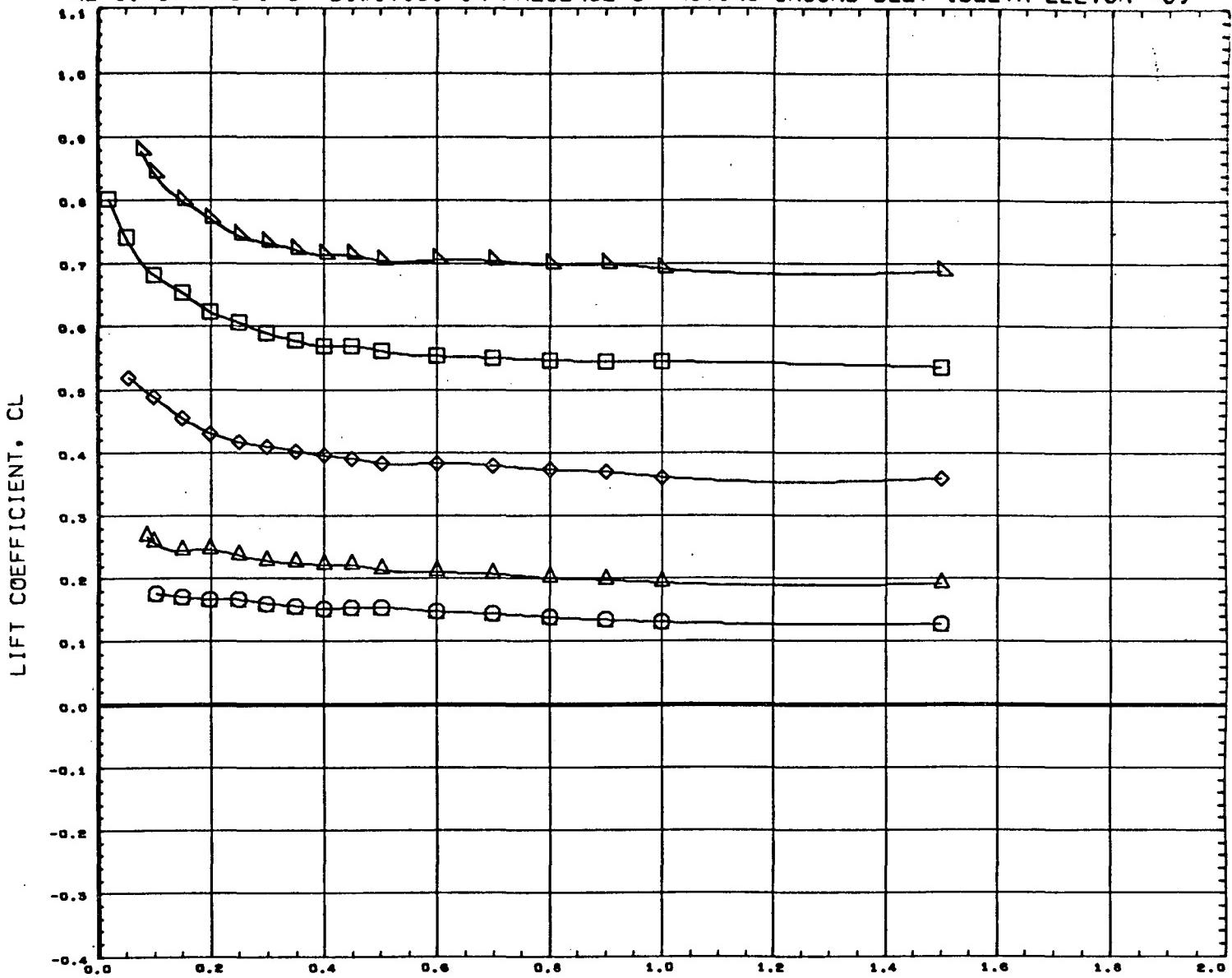
| TV | SWT S-081 B1W1V1G1 (BELT MOVING)

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AERO. CHARACT. OF B1W1V1G1 IN PRESENCE OF MOVING GROUND BELT (DELTA ELEVON=-6)



REFERENCE FILE

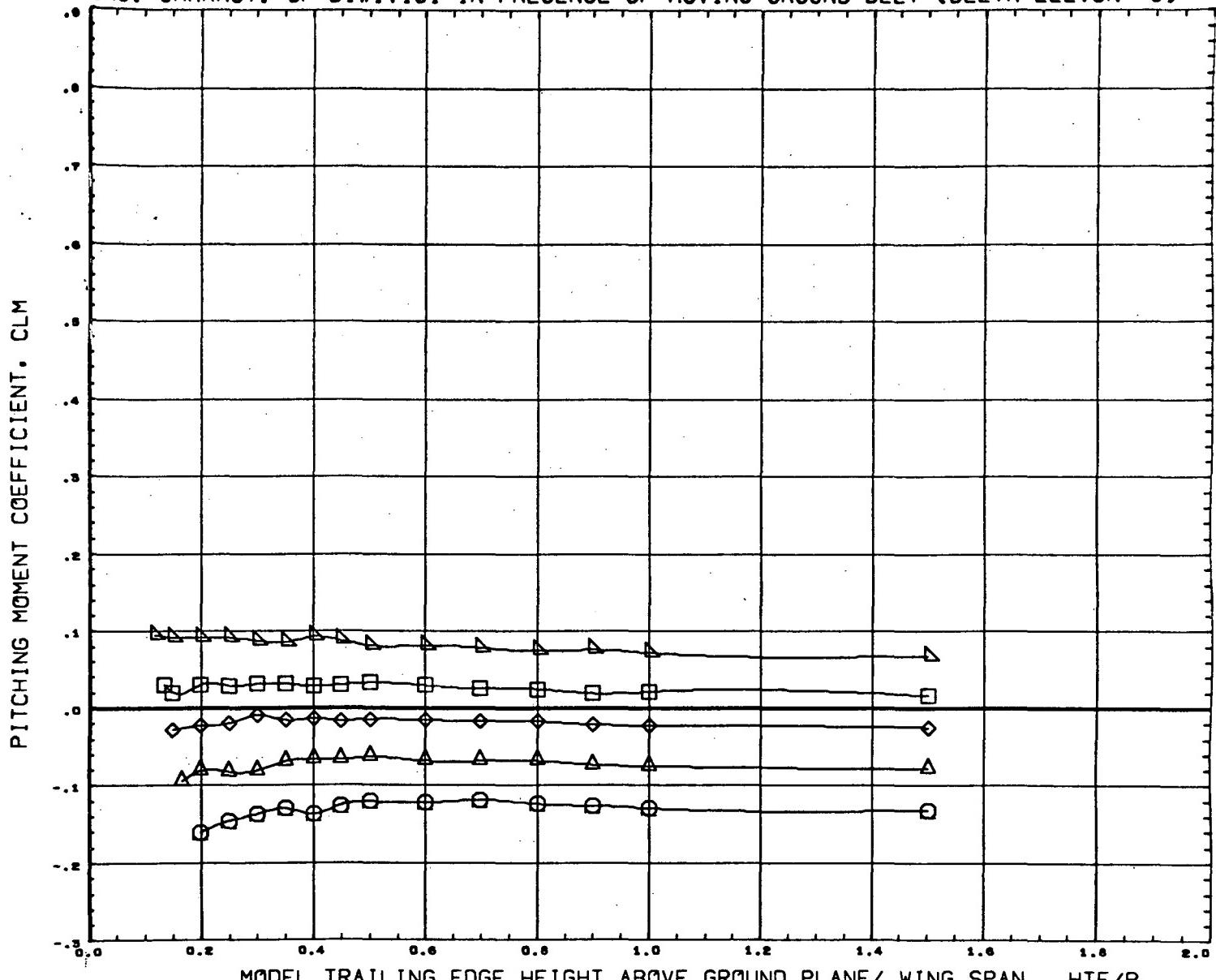
LTV LSWT S-081 B1W1V1G1 (BELT MOVING)

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AERO. CHARACT. OF B1W1V1G1 IN PRESENCE OF MOVING GROUND BELT (DELTA ELEVON=-6)

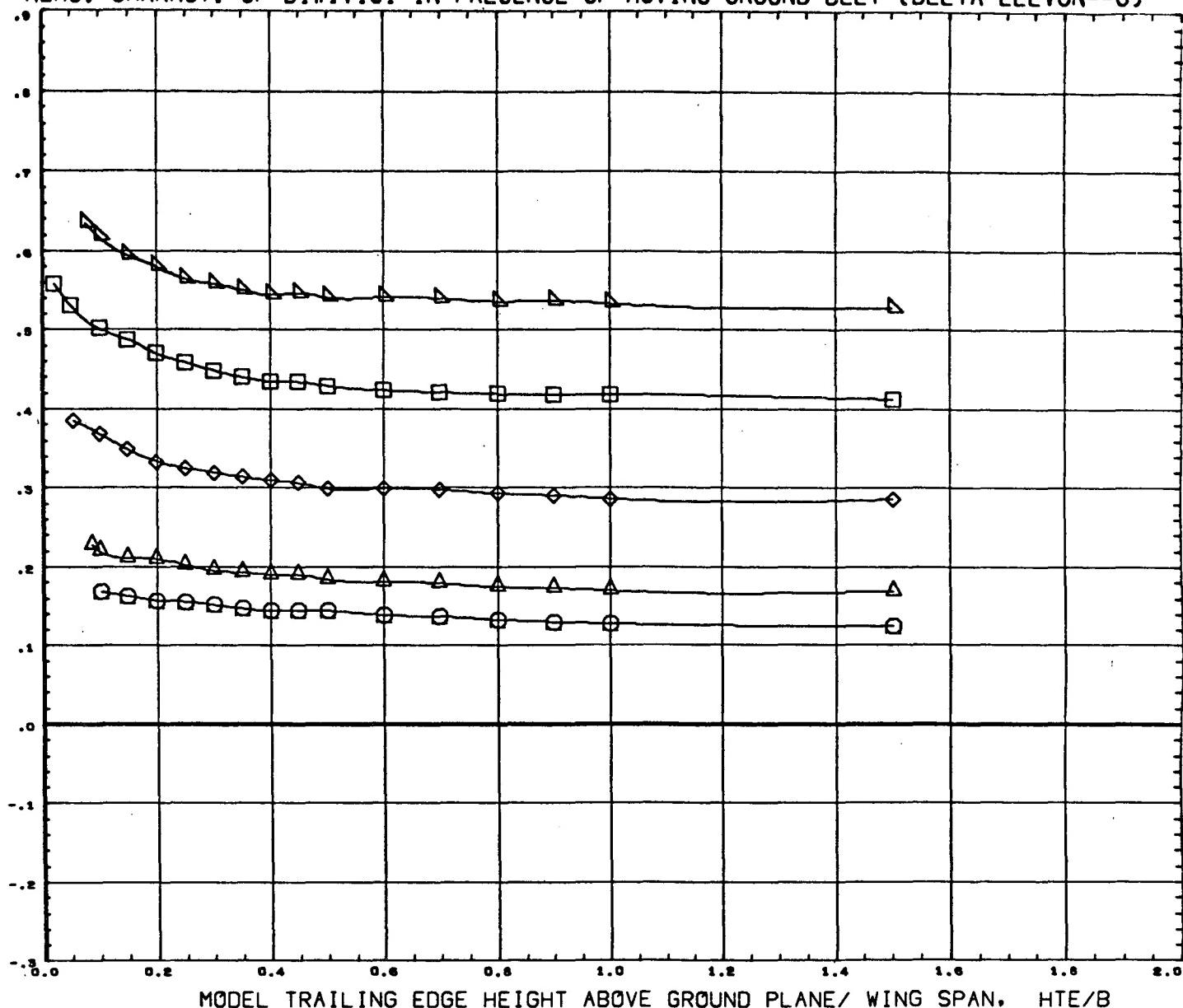


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 LTV LSWT S-081 B1W1V1G1 (BELT MOVING)

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AERO. CHARACT. OF B1W1V1G1 IN PRESENCE OF MOVING GROUND BELT (DELTA ELEVON=-6)

PITCHING MOMENT COEFFICIENT, CLM



MODEL TRAILING EDGE HEIGHT ABOVE GROUND PLANE/ WING SPAN, HTE/B

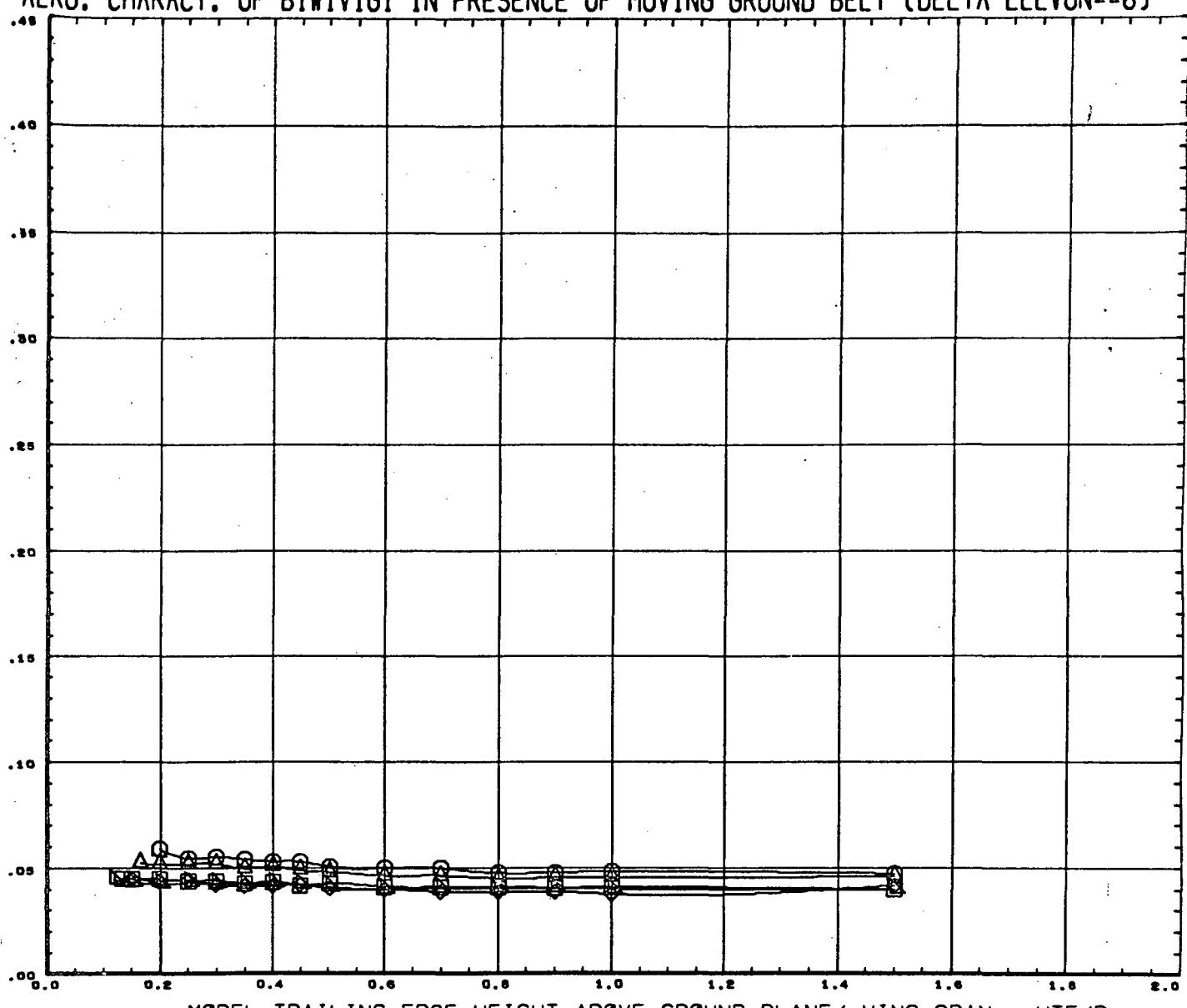
SYMBOL	ALPHA	PARAMETRIC VALUES	
		ELVN-R	ELVN-L
○	0.000	- 6.000	- 6.000
△	7.930	- 6.000	
◊	11.900		
□	16.000		
■	20.070		

REFERENCE FILE

REFERENCE INFORMATION		
SREF	7.8875	SQ.FT.
LREF	2.5400	FEET
BREF	3.8760	FEET
XMRP	75.7500	INCHES
YMRP	0.0000	INCHES
ZMRP	14.1100	INCHES
SCALE	0.0000	

AERO. CHARACT. OF B1W1V1G1 IN PRESENCE OF MOVING GROUND BELT (DELTA ELEVON=6)

DRAG COEFFICIENT, CD



MODEL TRAILING EDGE HEIGHT ABOVE GROUND PLANE/ WING SPAN, HTE/B

SYMBOL	ALPHA	PARAMETRIC VALUES		
○	- 4.000	ELVN-R	- 6.000	ELVN-L - 6.000
△	- 2.050	ELEVON	- 6.000	
□	0.000			
◇	1.970			
×	5.930			

REFERENCE FILE

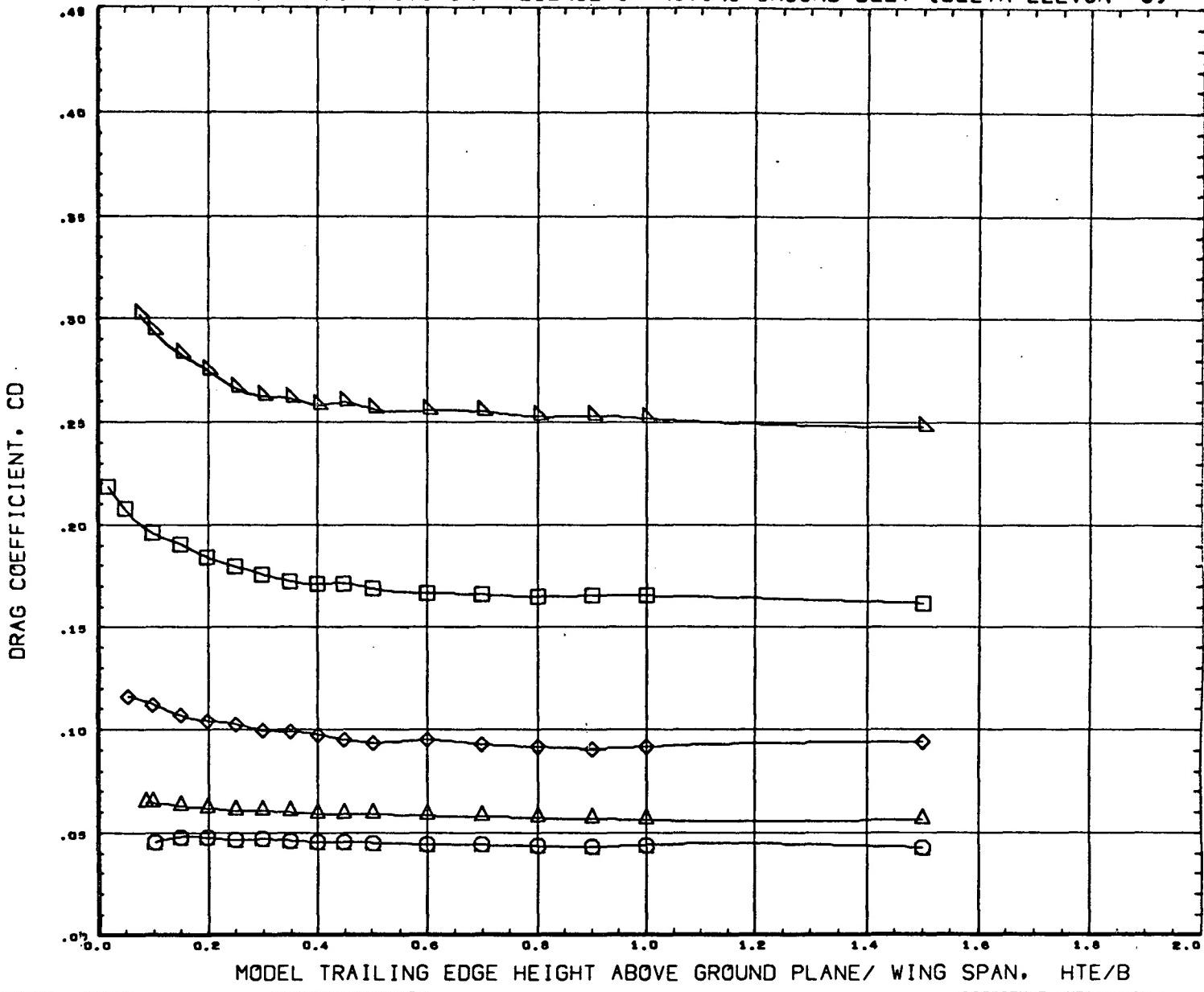
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YMRP	0.0000	INCHES
ZMRP	14.1100	INCHES
SCALE	0.0000	

LTV LSWT S-081 B1W1V1G1 (BELT MOVING)

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AERO. CHARACT. OF B1W1V1G1 IN PRESENCE OF MOVING GROUND BELT (DELTA ELEVON=-6)



SYMBOL	ALPHA	PARAMETRIC VALUES		
	6.000	ELVN-R	-	6.000 ELVN-L - 6.000
	7.930	ELEVON	-	6.000
	11.900			
	16.000			
	20.070			

**REFERENCE FILE**

REFERENCE INFORMATION		
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BREF	3.6780	FEET
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ZMRP	14.1100	INCHES
SCALE	0.0000	

LTV LSWT S-081 B1W1V1G1 (BELT MOVING)

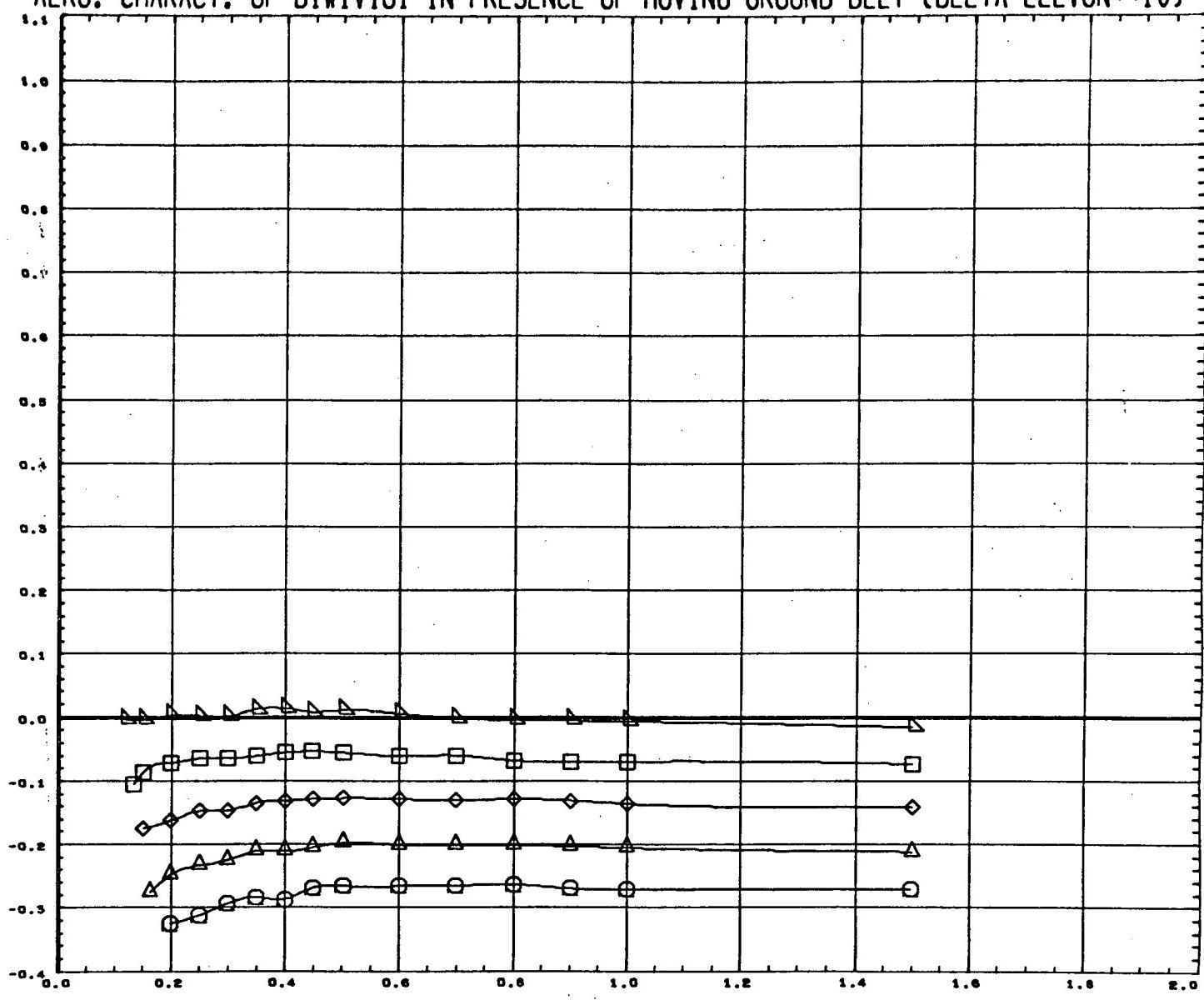
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AERO. CHARACT. OF B1W1V1G1 IN PRESENCE OF MOVING GROUND BELT (DELTA ELEVON=10)

LIFT COEFFICIENT, CL



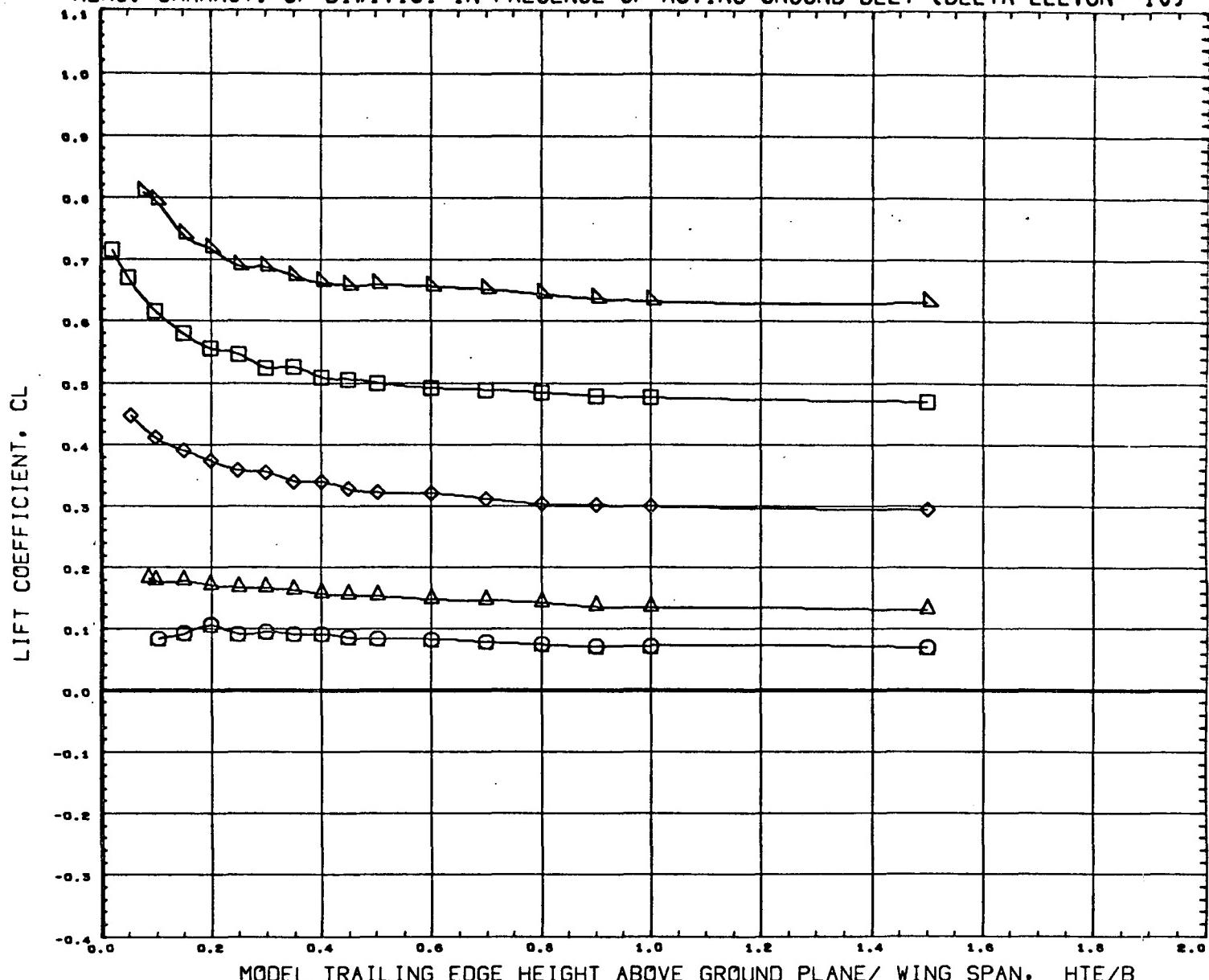
MODEL TRAILING EDGE HEIGHT ABOVE GROUND PLANE/ WING SPAN, HTE/B

SYMBOL	ALPHA	PARAMETRIC VALUES	
		ELVN-R	ELVN-L
○	- 4.000	- 10.000	- 10.000
△	- 2.050	ELEVON - 10.000	
◊	0.000		
▽	1.970		
□	3.950		

REFERENCE FILE

REFERENCE INFORMATION		
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BREF	3.6780	FEET
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YMRP	0.0000	INCHES
ZMRP	14.1100	INCHES
SCALE	0.0000	INCHES

AERO. CHARACT. OF B1W1V1G1 IN PRESENCE OF MOVING GROUND BELT (DELTA ELEVON=-10)



MODEL TRAILING EDGE HEIGHT ABOVE GROUND PLANE/ WING SPAN. HTE/B

SYMBOL	ALPHA	PARAMETRIC VALUES		
○	6.000	ELVN-R	- 10.000	ELVN-L
△	7.930	ELEVON	- 10.000	
◊	11.900			
□	15.000			
▽	20.070			

REFERENCE INFORMATION		
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BREF	3.6780	FEET
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YMRP	0.0000	INCHES
ZMRP	14.1100	INCHES
SCALE	0.0000	

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LTV LSWT S-081 B1W1V1G1 (BELT MOVING)

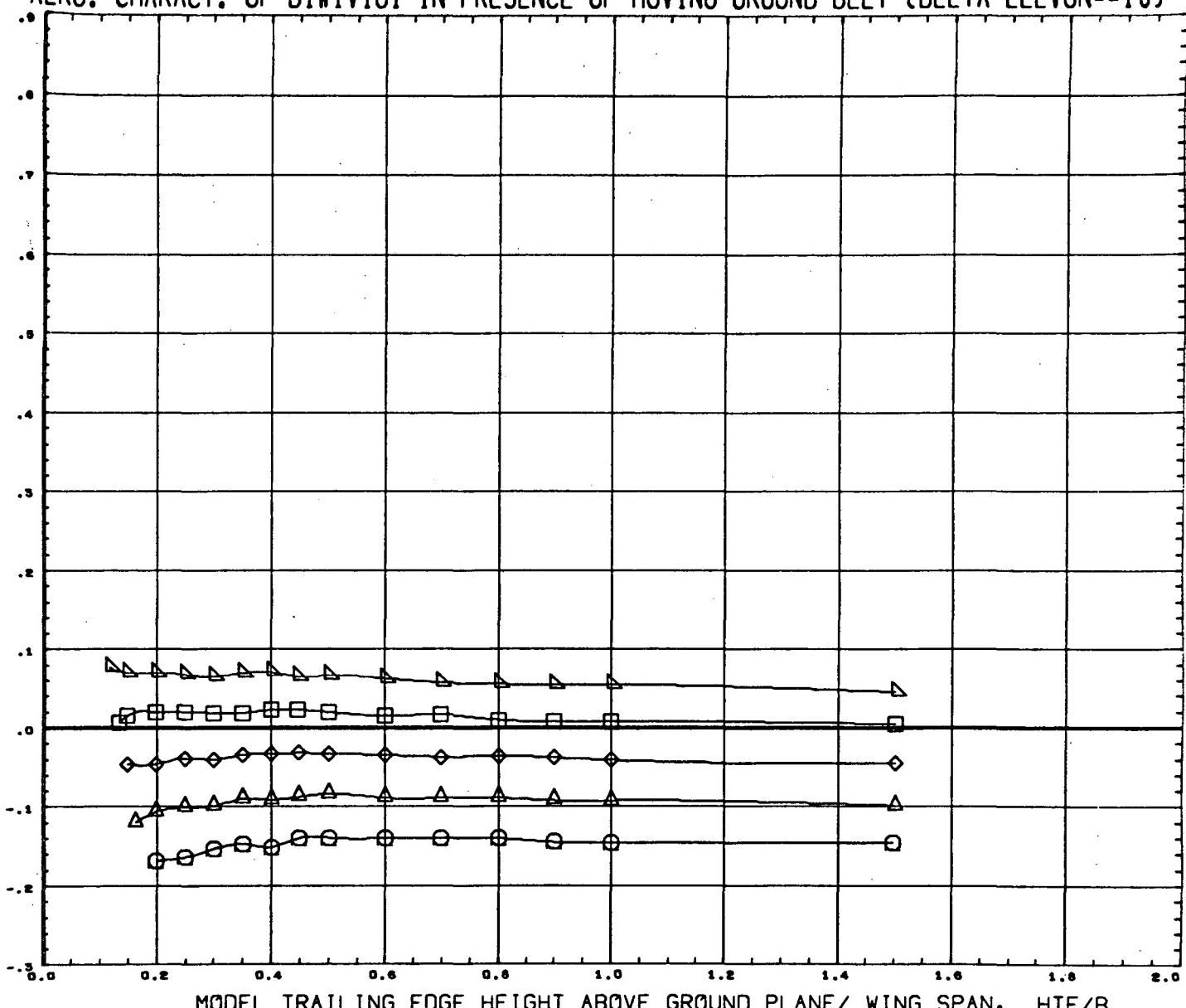
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AERO. CHARACT. OF B1W1V1G1 IN PRESENCE OF MOVING GROUND BELT (DELTA ELEVON=10)

PITCHING MOMENT COEFFICIENT, CLM



MODEL TRAILING EDGE HEIGHT ABOVE GROUND PLANE/ WING SPAN, HTE/B

SYMBOL	ALPHA	PARAMETRIC VALUES	
		ELVN-R	ELVN-L
○	- 4.000	- 10.000	- 10.000
△	- 2.050	ELEVON	- 10.000
◊	0.000		
□	1.970		
▢	3.930		

REFERENCE FILE

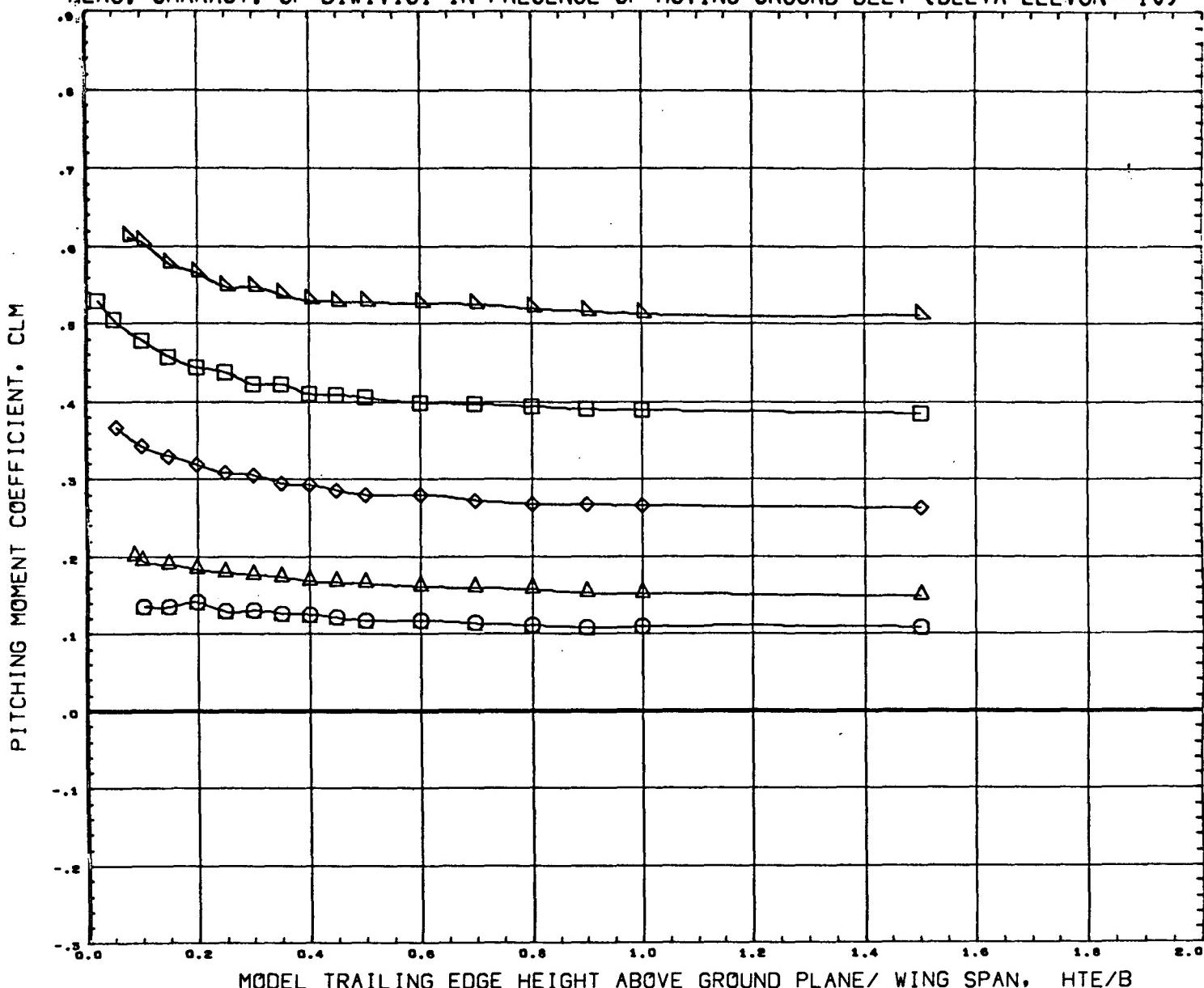
LTV LSWT S-081 B1W1V1G1 (BELT MOVING)

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BREF	3.6760	FEET
XMRP	75.7500	INCHES
YMRP	0.0000	INCHES
ZMRP	14.1100	INCHES
SCALE	0.0000	INCHES

AERO. CHARACT. OF B1W1V1G1 IN PRESENCE OF MOVING GROUND BELT (DELTA ELEVON=-10)



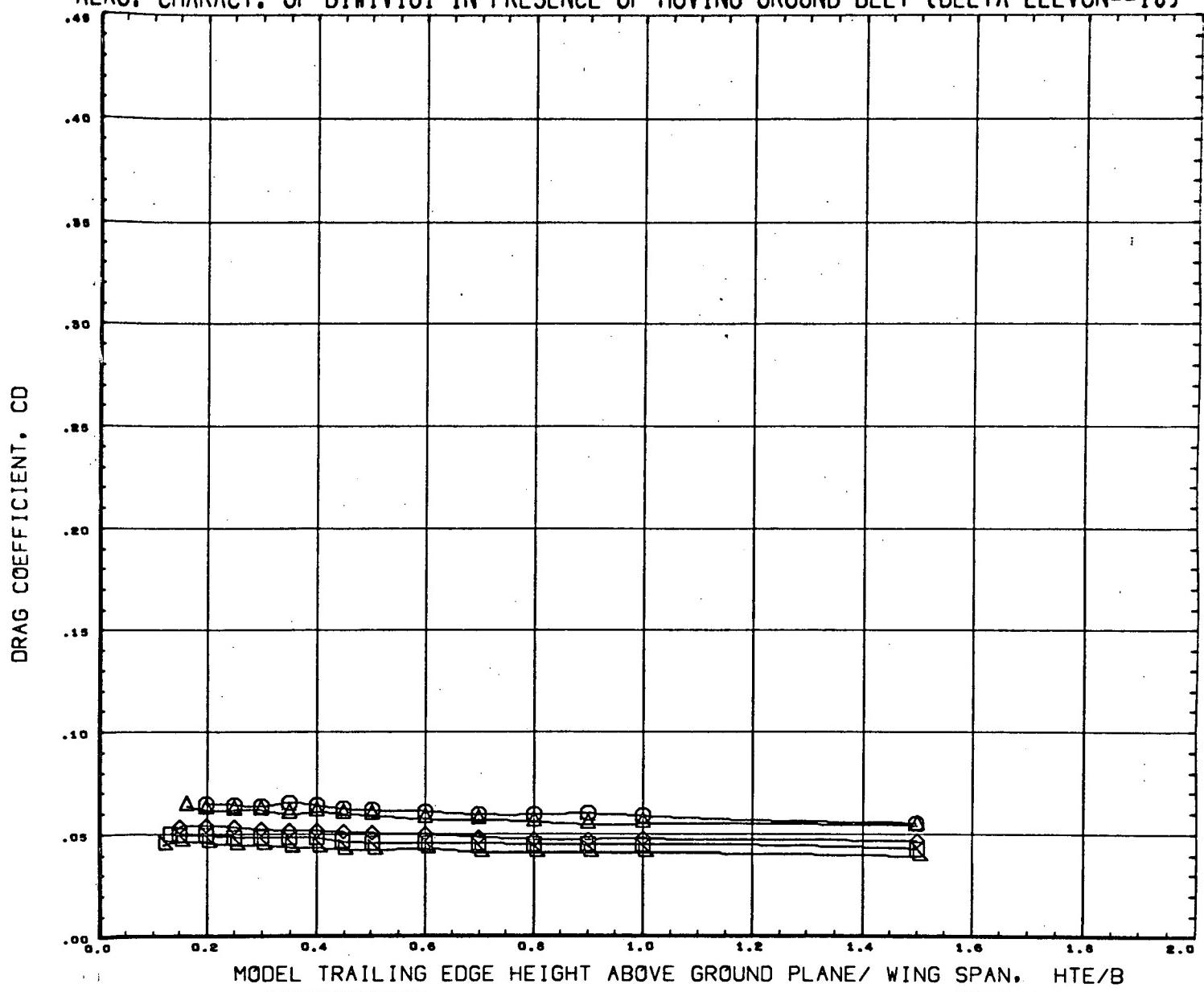
MODEL TRAILING EDGE HEIGHT ABOVE GROUND PLANE/ WING SPAN. HTE/B

SYMBOL	ALPHA	PARAMETRIC VALUES		
	.6.000	ELVN-R	- 10.000	ELVN-L - 10.000
	.7.930	ELEVON	- 10.000	
	\$1.900			
	16.000			
	20.070			

REFERENCE INFORMATION		
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YMRP	0.0000	INCHES
ZMRP	14.1100	INCHES
SCALE	0.0000	

## **REFERENCE FILE**

AERO. CHARACT. OF B1W1V1G1 IN PRESENCE OF MOVING GROUND BELT (DELT A ELEVON=-10)



SYMBOL	ALPHA	PARAMETRIC VALUES		
○	- 4.000	ELVN-R	- 10.000	ELVN-L - 10.000
△	- 2.050	ELEVON	- 10.000	
◊	0.000			
□	1.970			
■	3.930			

REFERENCE FILE

REFERENCE INFORMATION		
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LREF	2.5400	FEET
BREF	3.6780	FEET
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YMRP	0.0000	INCHES
ZMRP	14.1100	INCHES
SCALE	0.0000	

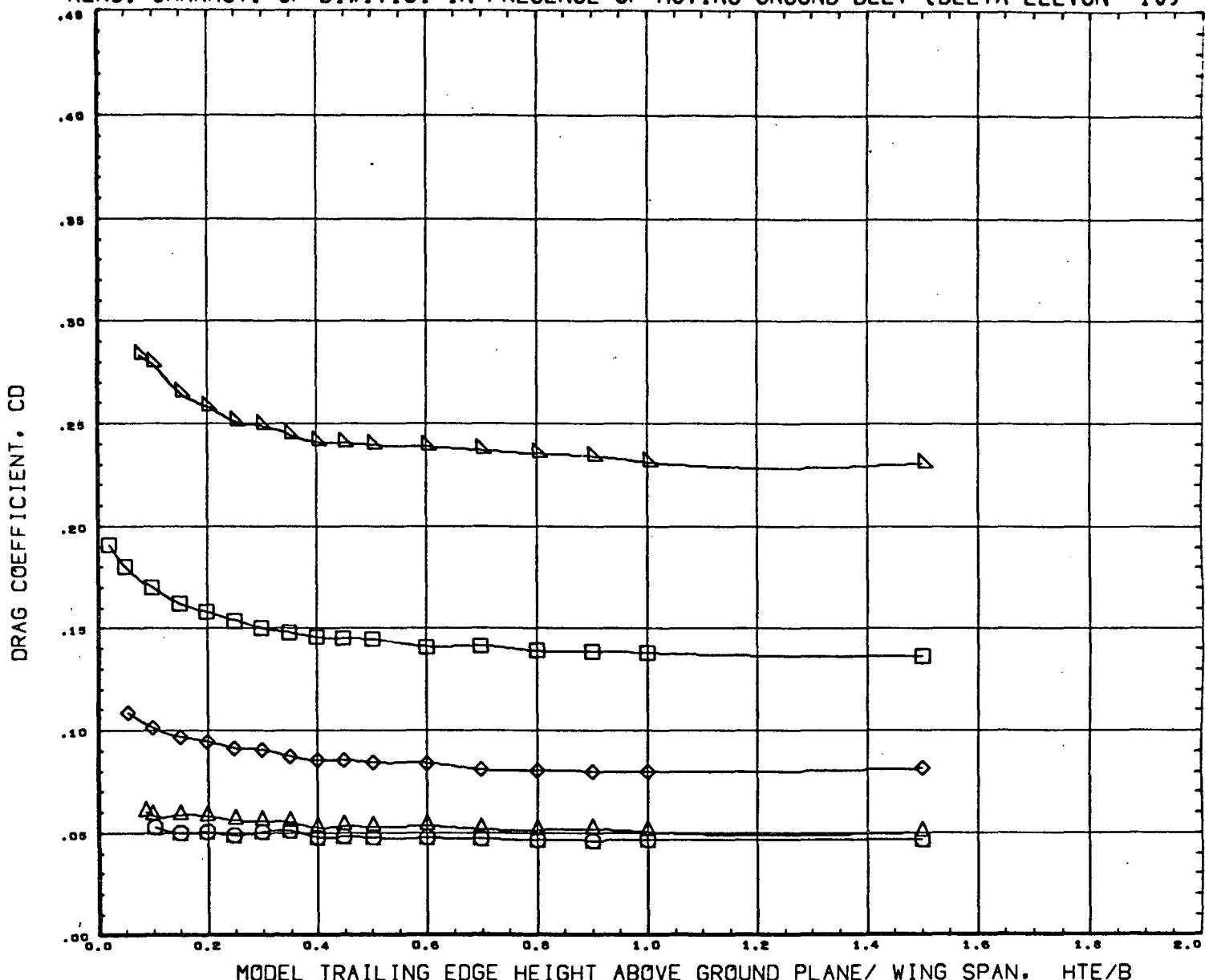
LTV LSWT S-081 B1W1V1G1 (BELT MOVING)

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AERO. CHARACT. OF B1W1V1G1 IN PRESENCE OF MOVING GROUND BELT (DELTA ELEVON=10)



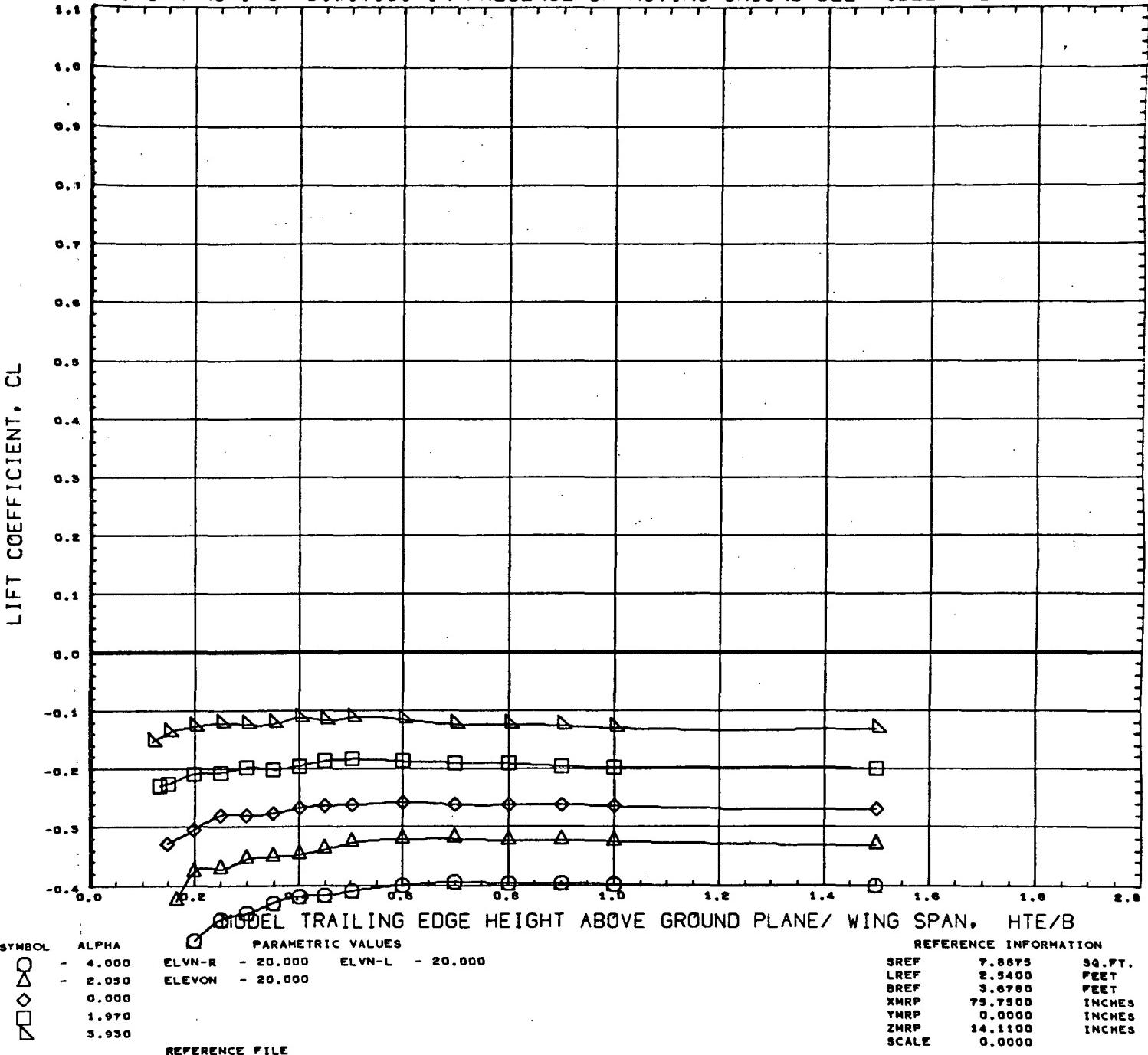
MODEL TRAILING EDGE HEIGHT ABOVE GROUND PLANE/ WING SPAN. HTE/B

SYMBOL ALPHA PARAMETRIC VALUES  
 ▲ 6.000 ELVN-R - 10.000 ELVN-L - 10.000  
 △ 7.950 ELEVON - 10.000  
 ◇ 11.900  
 □ 16.000  
 ○ 20.070

REFERENCE FILE

REFERENCE INFORMATION  
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 BREF 3.6760 FEET  
 XMRP 75.7500 INCHES  
 YMRP 0.0000 INCHES  
 ZMRP 14.1100 INCHES  
 SCALE 0.0000

AERO. CHARACT. OF BIW1V1G1 IN PRESENCE OF MOVING GROUND BELT (DELTA ELEVON=-20)



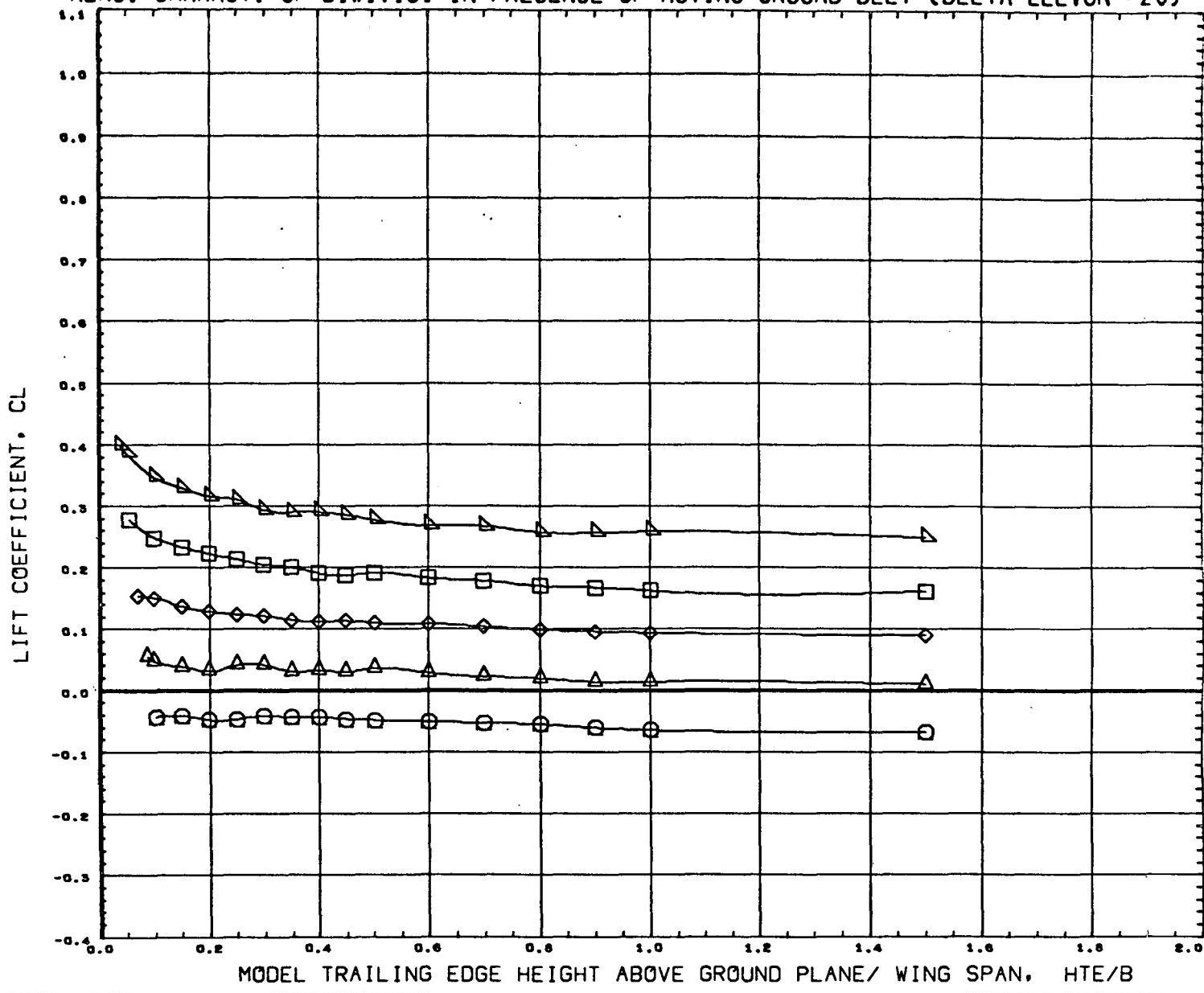
LTV LSWT S-081 B1W1V1G1 (BELT MOVING)

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AERO. CHARACT. OF B1W1V1G1 IN PRESENCE OF MOVING GROUND BELT (DELTA ELEVON=20)



MODEL TRAILING EDGE HEIGHT ABOVE GROUND PLANE/ WING SPAN, HTE/B

SYMBOL	ALPHA	PARAMETRIC VALUES	
		ELVN-R	ELVN-L
○	6.000	- 20.000	- 20.000
△	7.930	ELEVON	- 20.000
◊	10.100		
□	11.900		
▽	13.970		

REFERENCE FILE

REFERENCE INFORMATION		
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BREF	3.6780	FEET
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YMRP	0.0000	INCHES
ZMRP	14.1100	INCHES
SCALE	0.0000	

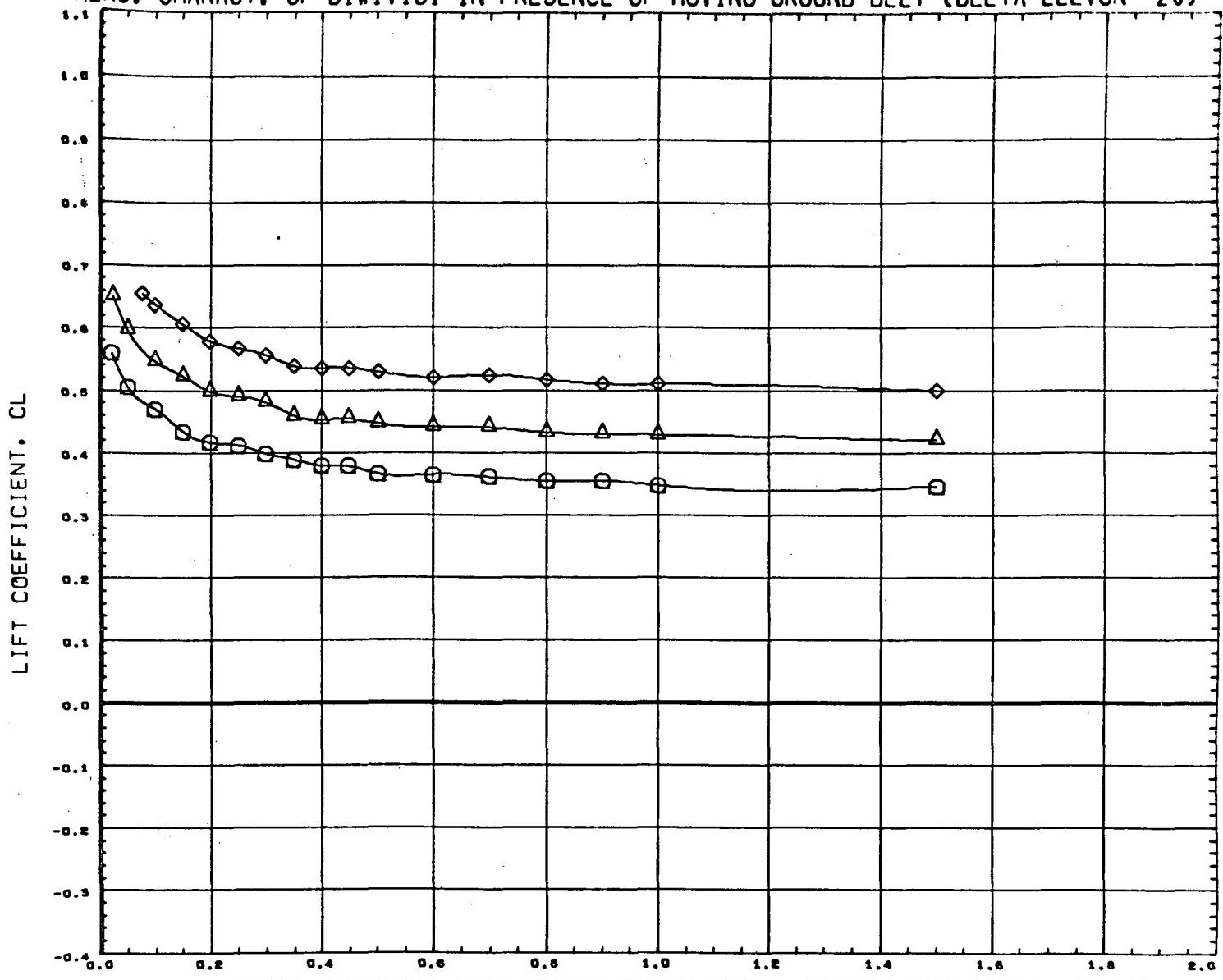
LTV LSWT S-081 B1W1V1G1 (BELT MOVING)

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AERO. CHARACT. OF B1W1V1G1 IN PRESENCE OF MOVING GROUND BELT (DELTA ELEVON=20)



MODEL TRAILING EDGE HEIGHT ABOVE GROUND PLANE/ WING SPAN. HTE/B

SYMBOL      ALPHA                                    PARAMETRIC VALUES  
 ○      16.000      ELVN-R - 20.000      ELVN-L - 20.000  
 △      18.000      ELEVON - 20.000  
 ◇      20.070

REFERENCE INFORMATION  
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 LREF      2.5400      FEET  
 BREF      3.6780      FEET  
 XMRF      75.7500      INCHES  
 YMRF      0.0000      INCHES  
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 SCALE      0.0000

REFERENCE FILE

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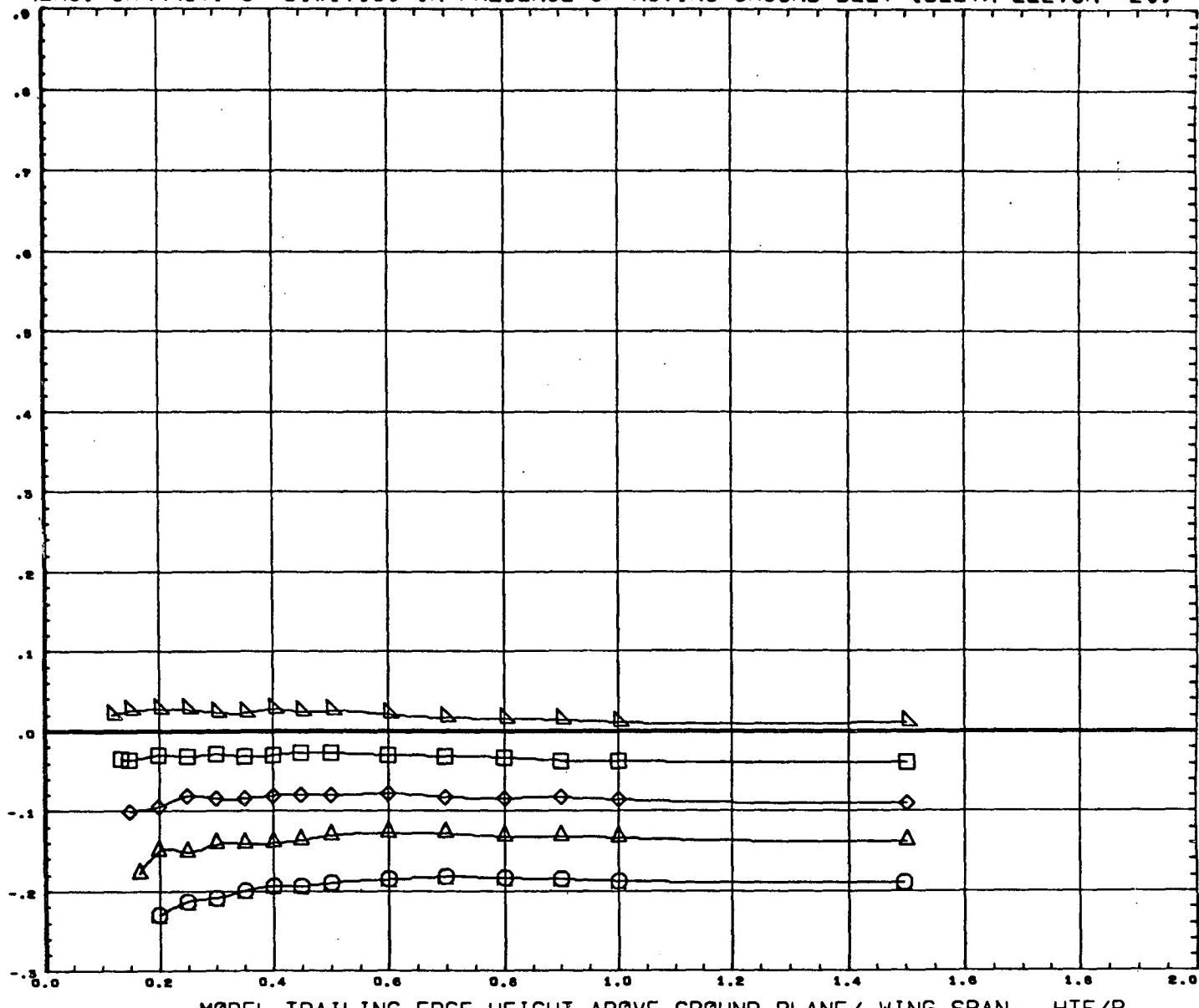
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AERO. CHARACT. OF B1W1V1G1 IN PRESENCE OF MOVING GROUND BELT (DELTA ELEVON=-20)

PITCHING MOMENT COEFFICIENT, CLM



MODEL TRAILING EDGE HEIGHT ABOVE GROUND PLANE/ WING SPAN. HTE/B

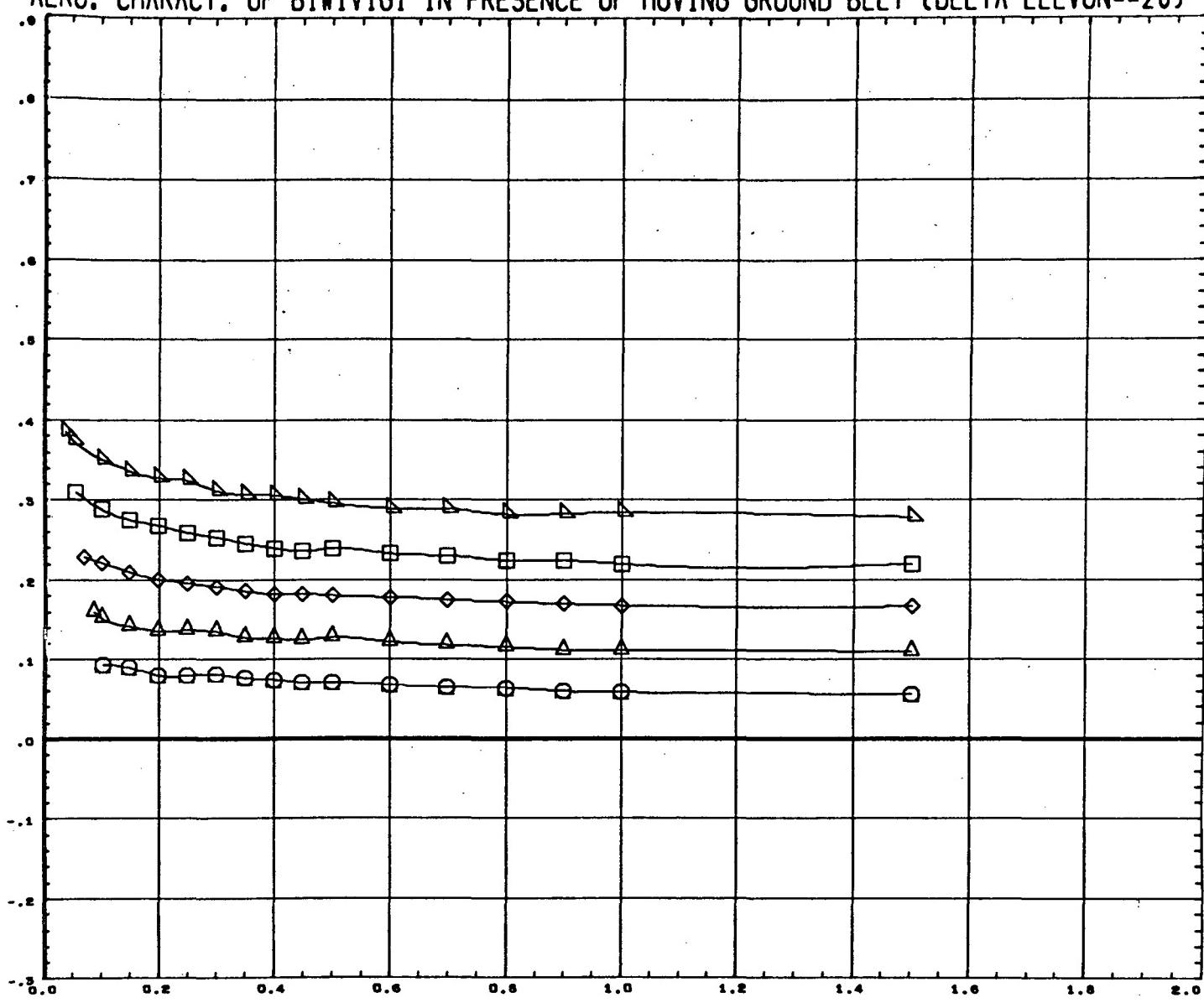
SYMBOL ALPHA PARAMETRIC VALUES  
 ○ - 4.000 ELVN-R - 20.000 ELVN-L - 20.000  
 △ - 2.050 ELEVON - 20.000  
 ◇ 0.000  
 □ 1.970  
 ▲ 3.950

REFERENCE FILE

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 BREF 3.6780 FEET  
 XMRP 75.7500 INCHES  
 YMRP 0.0000 INCHES  
 ZMRP 14.1100 INCHES  
 SCALE 0.0000

AERO. CHARACT. OF B1W1V1G1 IN PRESENCE OF MOVING GROUND BELT (DELTA ELEVON=-20)

PITCHING MOMENT COEFFICIENT. CLM



MODEL TRAILING EDGE HEIGHT ABOVE GROUND PLANE/ WING SPAN. HTE/B

SYMBOL	ALPHA	PARAMETRIC VALUES	
		ELVN-R	ELVN-L
○	6.000	- 20.000	- 20.000
△	7.930	ELEVON - 20.000	
◊	10.100		
□	11.900		
○	13.970		

REFERENCE FILE

REFERENCE INFORMATION		
SREF	7.8875	SQ.FT.
LREF	2.5400	FEET
BREF	3.6780	FEET
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YMRP	0.0000	INCHES
ZMRP	14.1100	INCHES
SCALE	0.0000	INCHES

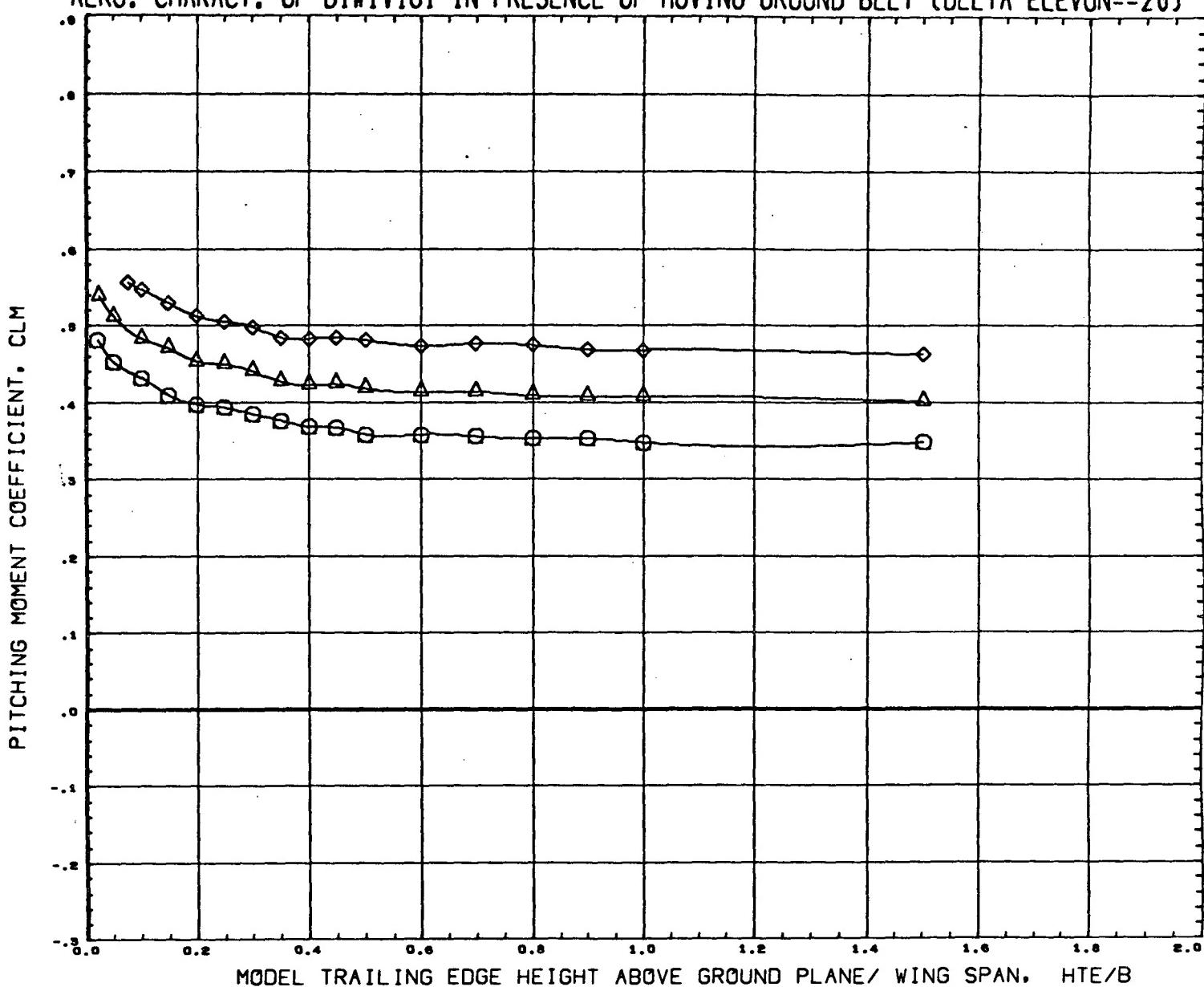
LTV LSWT S-081 B1W1V1G1 (BELT MOVING)

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AERO. CHARACT. OF B1W1V1G1 IN PRESENCE OF MOVING GROUND BELT (DELTA ELEVON=-20)



MODEL TRAILING EDGE HEIGHT ABOVE GROUND PLANE/ WING SPAN, HTE/B

SYMBOL	ALPHA	PARAMETRIC VALUES	
		ELVN-R	ELVN-L
○	16.000	- 20.000	- 20.000
△	16.000	ELEVON	- 20.000
◊	20.070		

REFERENCE INFORMATION		
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YMRP	0.0000	INCHES
ZMRP	14.1100	INCHES
SCALE	0.0000	

REFERENCE FILE

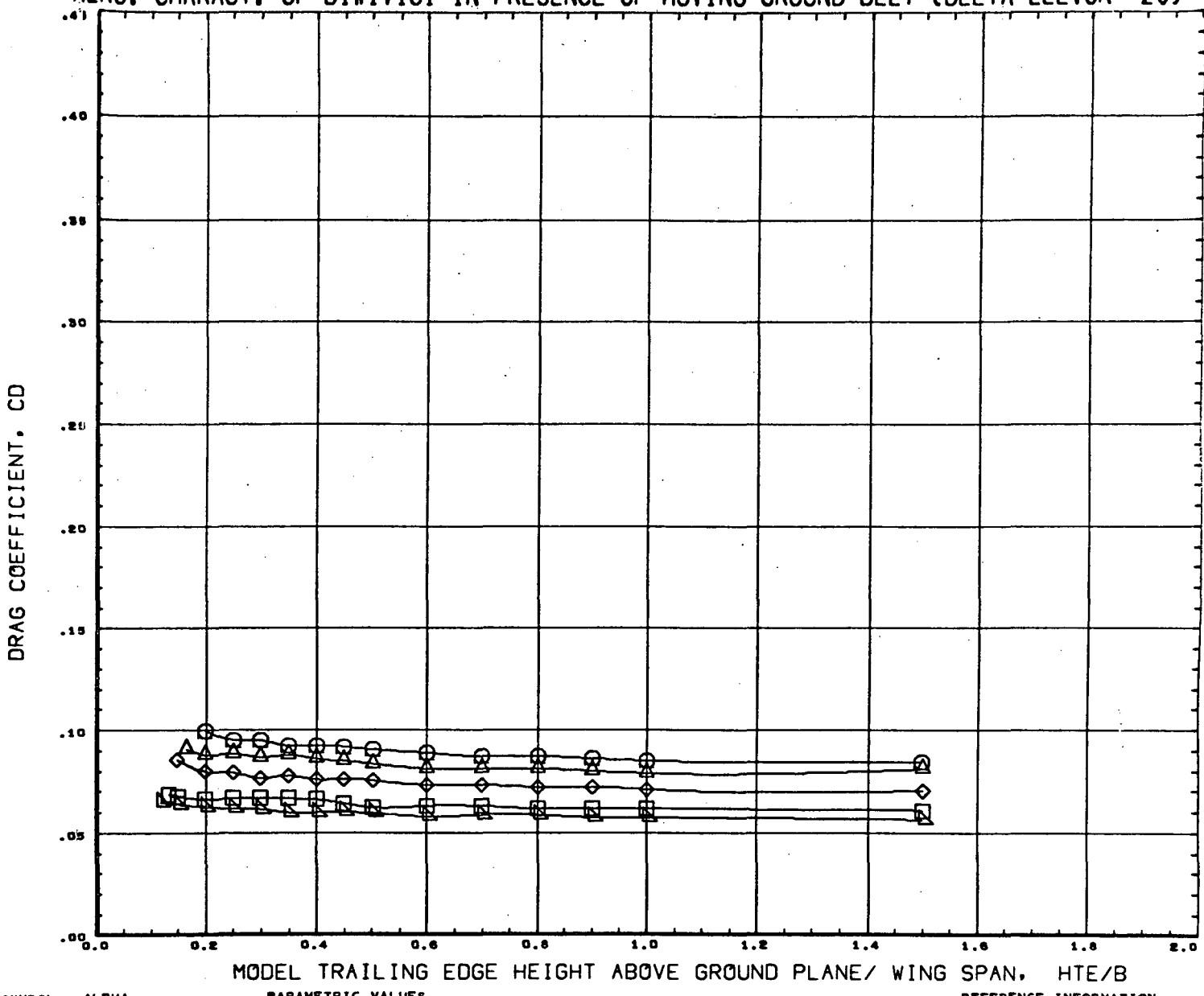
LTV LSWT S-081 B1W1V1G1 (BELT MOVING)

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AERO. CHARACT. OF BIW1V1G1 IN PRESENCE OF MOVING GROUND BELT (DELTA ELEVON=-20)



MODEL TRAILING EDGE HEIGHT ABOVE GROUND PLANE/ WING SPAN. HTE/B

SYMBOL	ALPHA	PARAMETRIC VALUES		
	- 4.000	ELVN-R	- 20.000	ELVN-L - 20.000
	- 2.050	ELEVON	- 20.000	
	0.000			
	1.970			
	3.930			

REFERENCE INFORMATION		
REF	7.8875	SQ.FT.
REF	2.5400	FEET
REF	3.6780	FEET
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MRP	0.0000	INCHES
MRP	14.1100	INCHES
CALE	0.0000	

## **REFERENCE FILE**

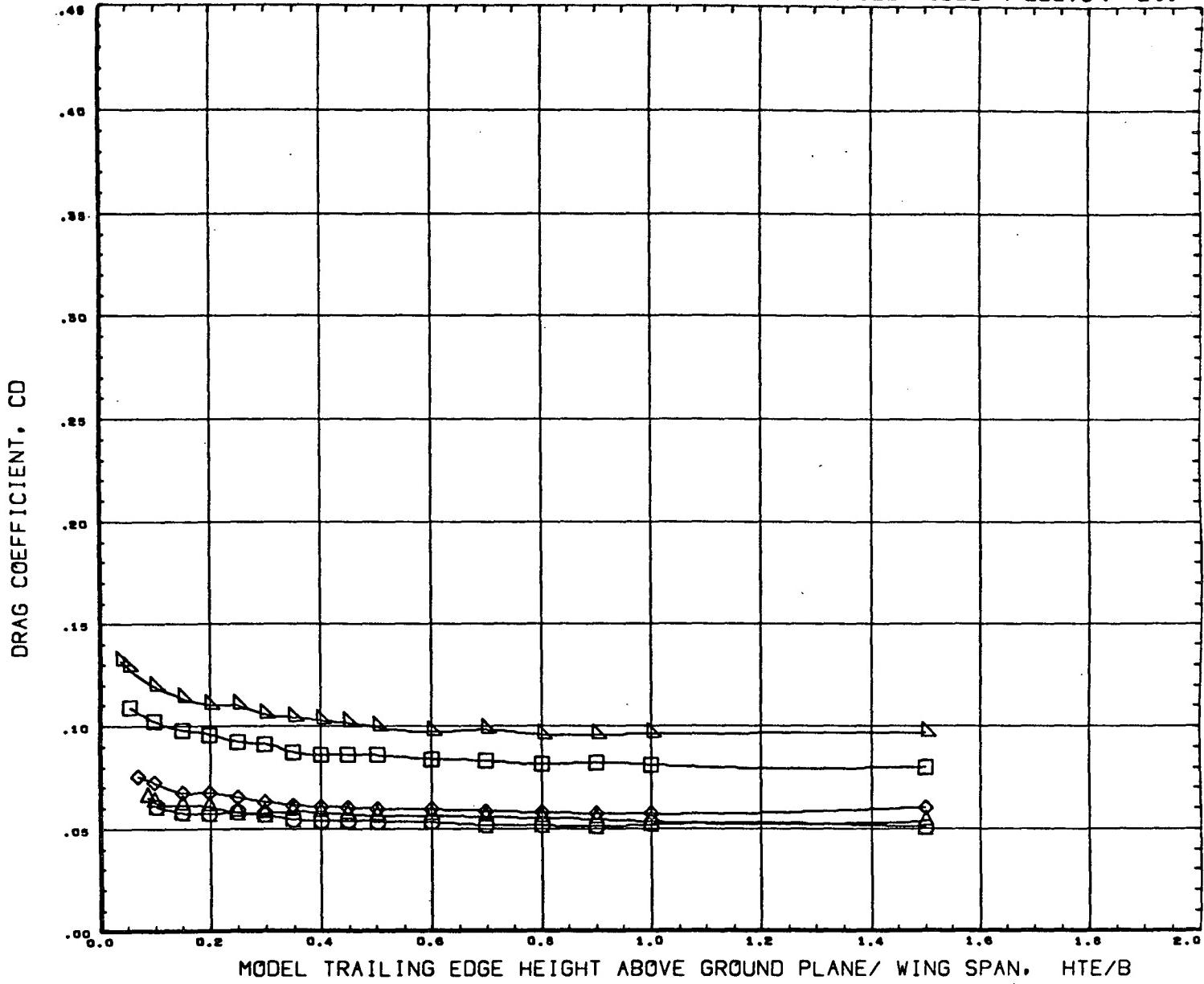
LTV LSWT S-081 B1W1V1G1 (BELT MOVING)

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AERO. CHARACT. OF B1W1V1G1 IN PRESENCE OF MOVING GROUND BELT (DELTA ELEVON=-20)



MODEL TRAILING EDGE HEIGHT ABOVE GROUND PLANE/ WING SPAN. HTE/B

SYMBOL	ALPHA	PARAMETRIC VALUES		REFERENCE INFORMATION			
		ELVN-R	ELVN-L	SREF	7.8675	SQ.FT.	
○	6.000	- 20.000	ELVN-L	- 20.000	LREF	2.5400	FEET
△	7.930	ELEVON	- 20.000	BREF	3.6780	FEET	
◊	10.100			XMRP	75.7500	INCHES	
□	11.900			YMRP	0.0000	INCHES	
▽	13.970			ZMRP	14.3100	INCHES	

## **REFERENCE FILE**

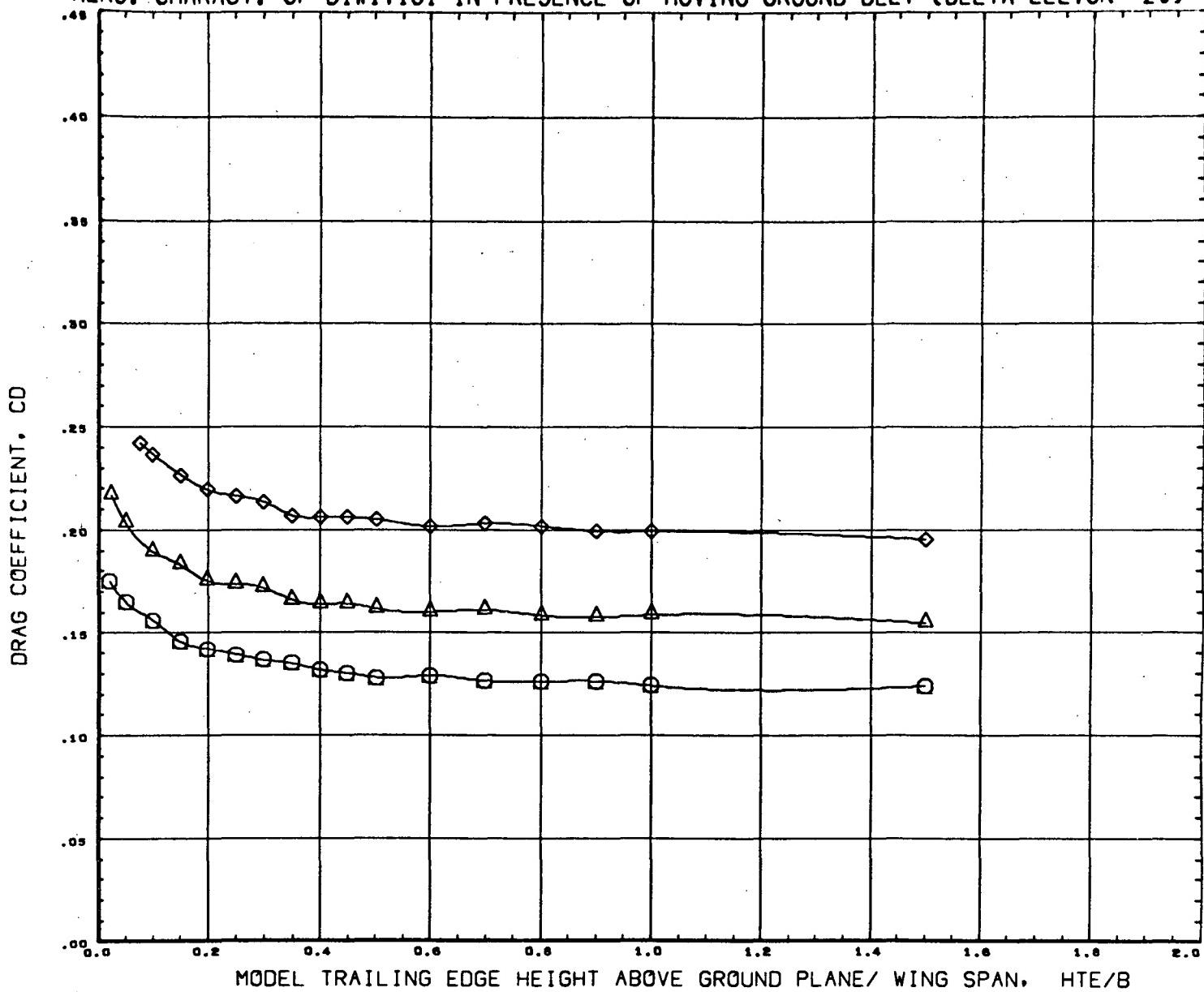
LTV LSWT S-081 B1W1V1G1 (BELT MOVING)

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AERO. CHARACT. OF B1W1V1G1 IN PRESENCE OF MOVING GROUND BELT (DELTA ELEVON=-20)



SYMBOL	ALPHA	PARAMETRIC VALUES		
	16.000	ELVN-R	- 20.000	ELVN-L - 20.000
	16.000	ELEVON	- 20.000	
	20.070			

REFERENCE INFORMATION		
EF	7.8875	SQ.FT.
EF	2.5400	FEET
EF	3.6780	FEET
RP	75.7500	INCHES
RP	0.0000	INCHES
RP	14.1100	INCHES
ALE	0.0000	

**REFERENCE FILE**

LTV LSWT S-081 B1W1V1G1 (BELT MOVING)

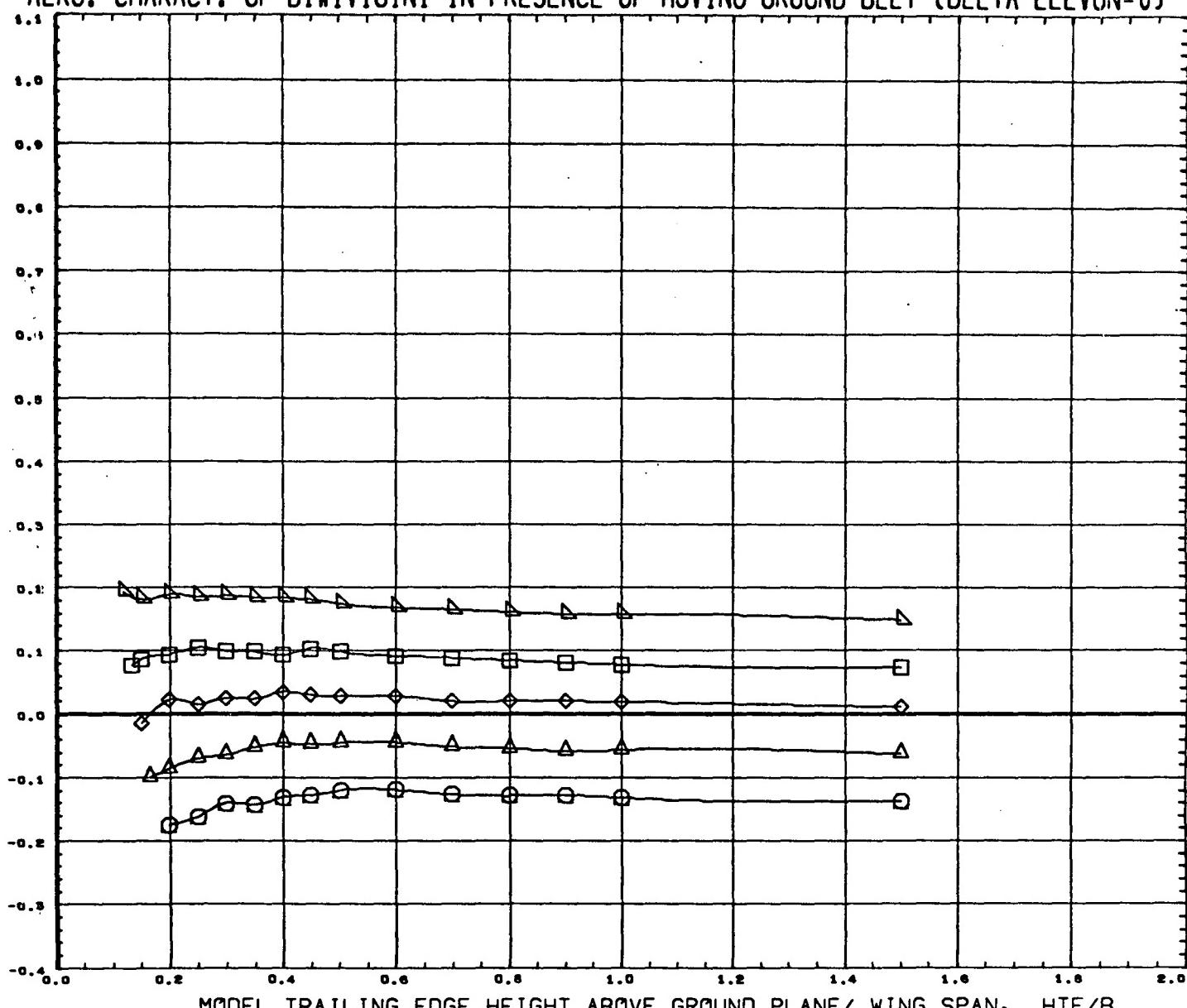
(RDD003) 07 NOV 72

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AERO. CHARACT. OF B1W1V1G1N1 IN PRESENCE OF MOVING GROUND BELT (DELTA ELEVON=0)

LIFT COEFFICIENT, CL



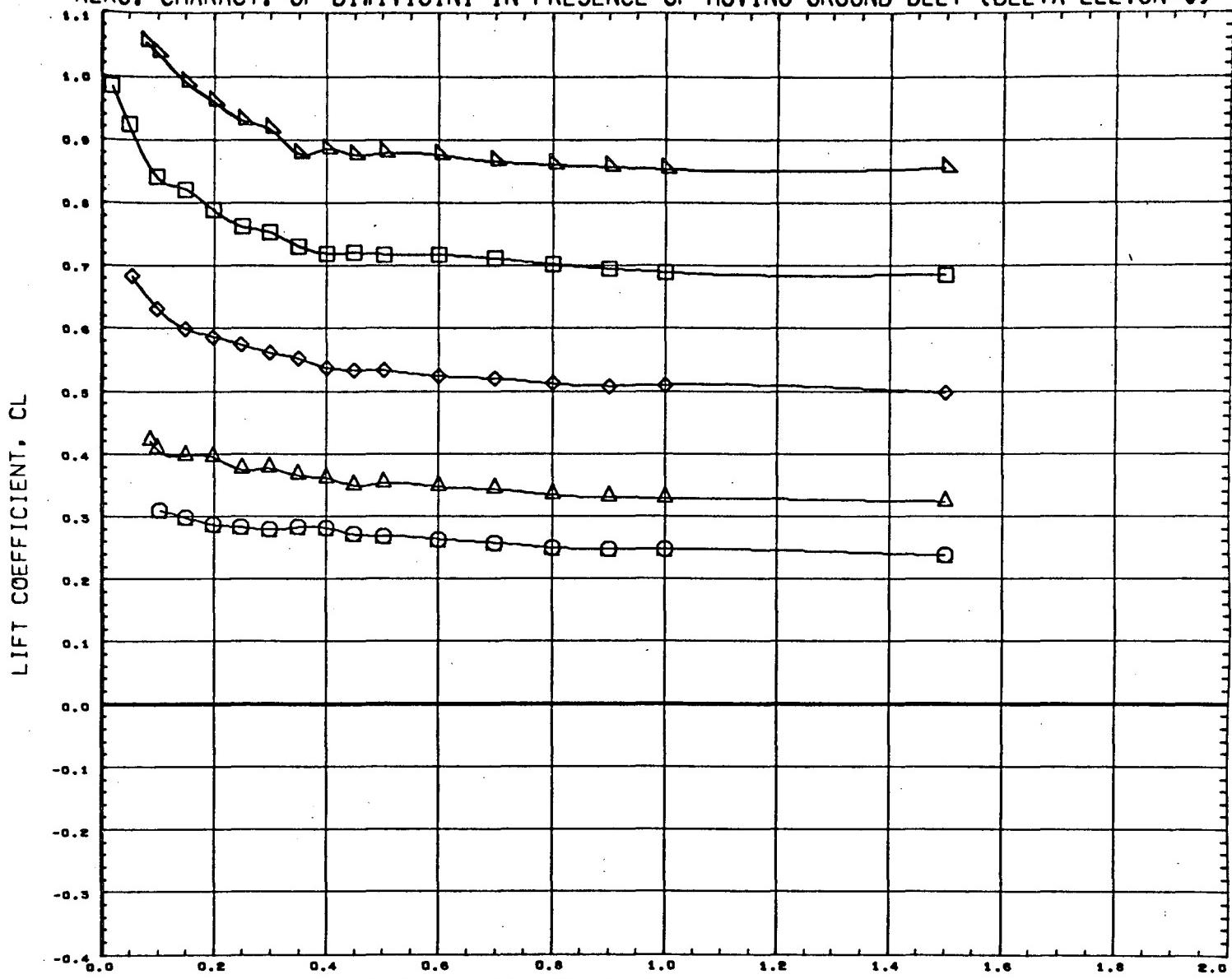
MODEL TRAILING EDGE HEIGHT ABOVE GROUND PLANE/ WING SPAN, HTE/B

SYMBOL	ALPHA	PARAMETRIC VALUES			
		ELVN-R	0.000	ELVN-L	0.000
○	- 4.000	ELVN-R	0.000	ELVN-L	0.000
△	- 2.050	ELEVON	0.000		
◊	0.000				
□	1.970				
	3.950				

REFERENCE FILE

REFERENCE INFORMATION		
SREF	7.8875	SQ.FT.
LREF	2.5400	FEET
BREF	3.6760	FEET
XMRP	75.7500	INCHES
YMRP	0.0000	INCHES
ZMRP	14.1100	INCHES
SCALE	0.0000	

AERO. CHARACT. OF B1W1V1G1N1 IN PRESENCE OF MOVING GROUND BELT (DELTA ELEVON=0)



MODEL TRAILING EDGE HEIGHT ABOVE GROUND PLANE/ WING SPAN. HTE/B

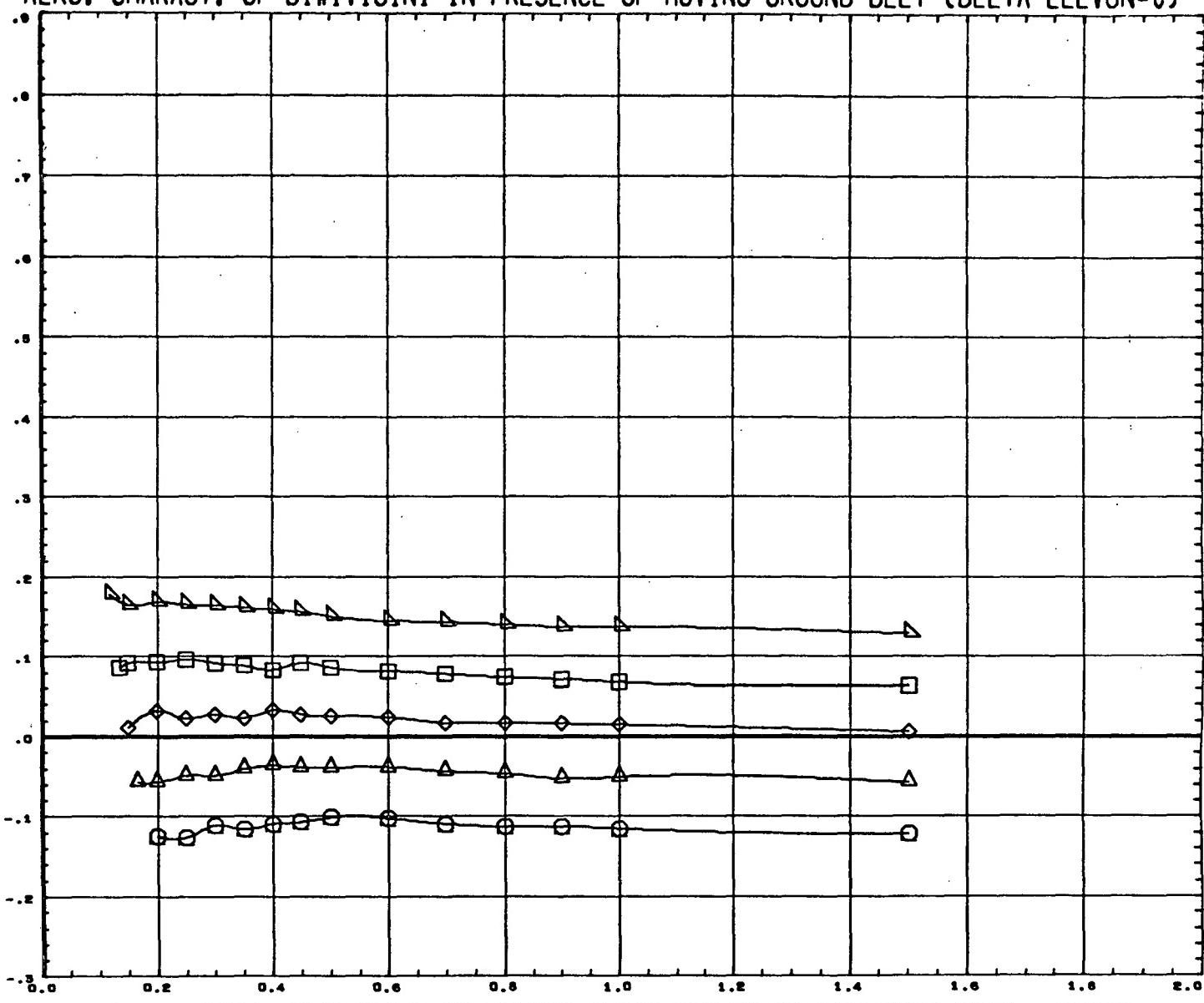
SYMBOL	ALPHA	PARAMETRIC VALUES			
		ELVN-R	0.000	ELVN-L	0.000
○	6.000				
△	7.930	ELEVON	0.000		
◊	11.900				
□	16.000				
▽	20.070				

REFERENCE FILE

REFERENCE INFORMATION		
SREF	7.8875	SQ.FT.
LREF	2.5400	FEET
BREF	3.6780	FEET
XMRP	75.7500	INCHES
YMRP	0.0000	INCHES
ZMRP	14.1100	INCHES
SCALE	0.0000	INCHES

AERO. CHARACT. OF B1W1V1G1N1 IN PRESENCE OF MOVING GROUND BELT (DELTA ELEVON=0)

PITCHING MOMENT COEFFICIENT, CLM



MODEL TRAILING EDGE HEIGHT ABOVE GROUND PLANE/ WING SPAN, HTE/B

SYMBOL	ALPHA	PARAMETRIC VALUES		REFERENCE INFORMATION		
		ELVN-R	ELVN-L	SREF	LREF	BREF
▲	- 4.000	0.000	0.000	7.8875	2.5400	3.6780
□	- 2.050	ELEVON	0.000			
◆	0.000			75.7500	0.0000	14.1100
×	1.970					
○	3.930					

REFERENCE FILE

LTV LSWT S-081 B1W1V1G1N1 (BELT MOVING)

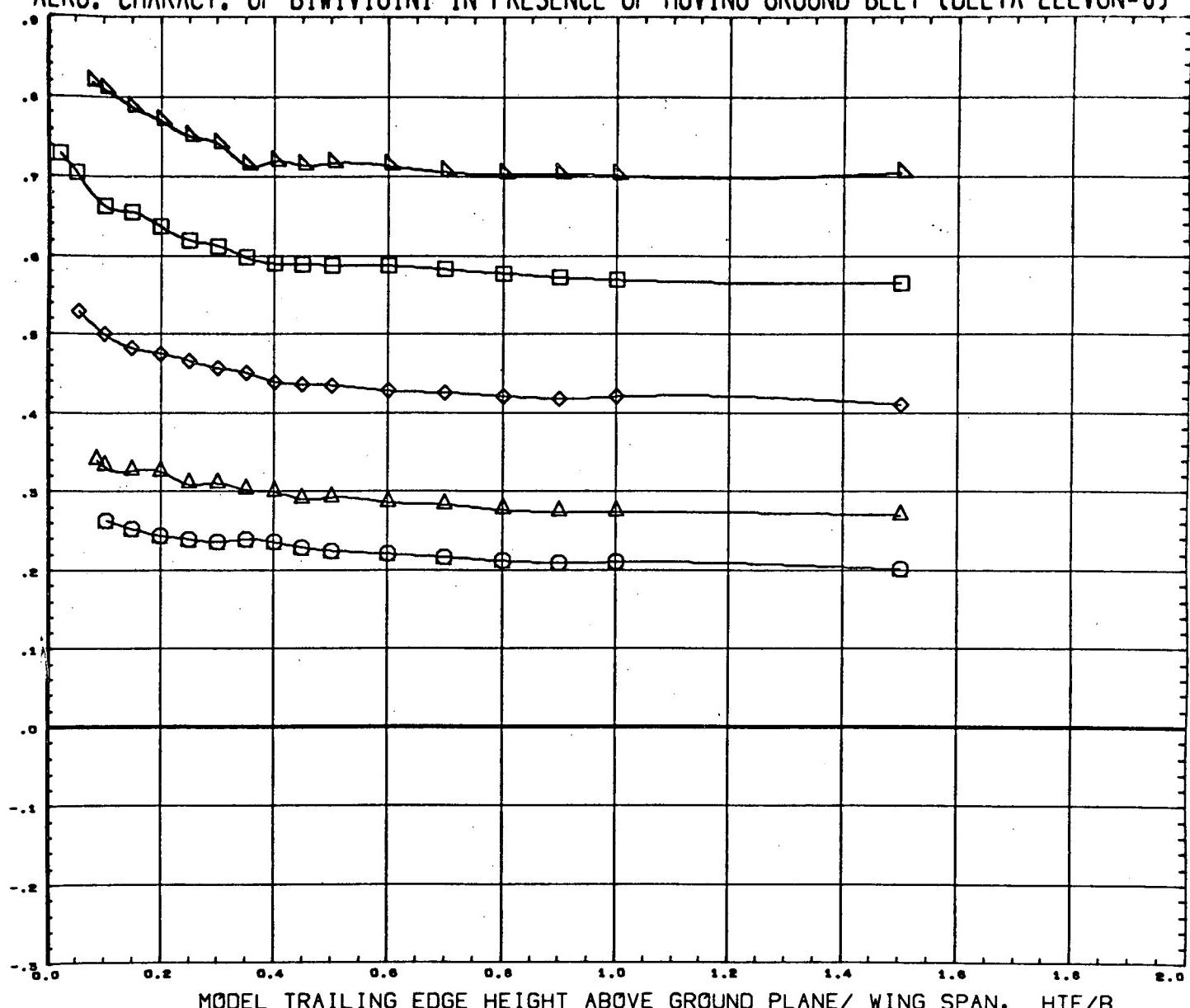
(R00008) 07 NOV 72

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54

AERO. CHARACT. OF B1W1V1G1N1 IN PRESENCE OF MOVING GROUND BELT (DELTA ELEVON=0)

PITCHING MOMENT COEFFICIENT. CLM



MODEL TRAILING EDGE HEIGHT ABOVE GROUND PLANE/ WING SPAN. HTE/B

SYMBOL	ALPHA	PARAMETRIC VALUES			
		ELVN-R	0.000	ELVN-L	0.000
○	6.000				
△	7.930	ELEVON	0.000		
◊	11.900				
□	16.000				
○	20.070				

REFERENCE FILE

REFERENCE INFORMATION		
SREF	7.8875	SQ.FT.
LREF	2.5400	FEET
BREF	3.6780	FEET
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YMRP	0.0000	INCHES
ZMRP	14.1100	INCHES
SCALE	0.0000	

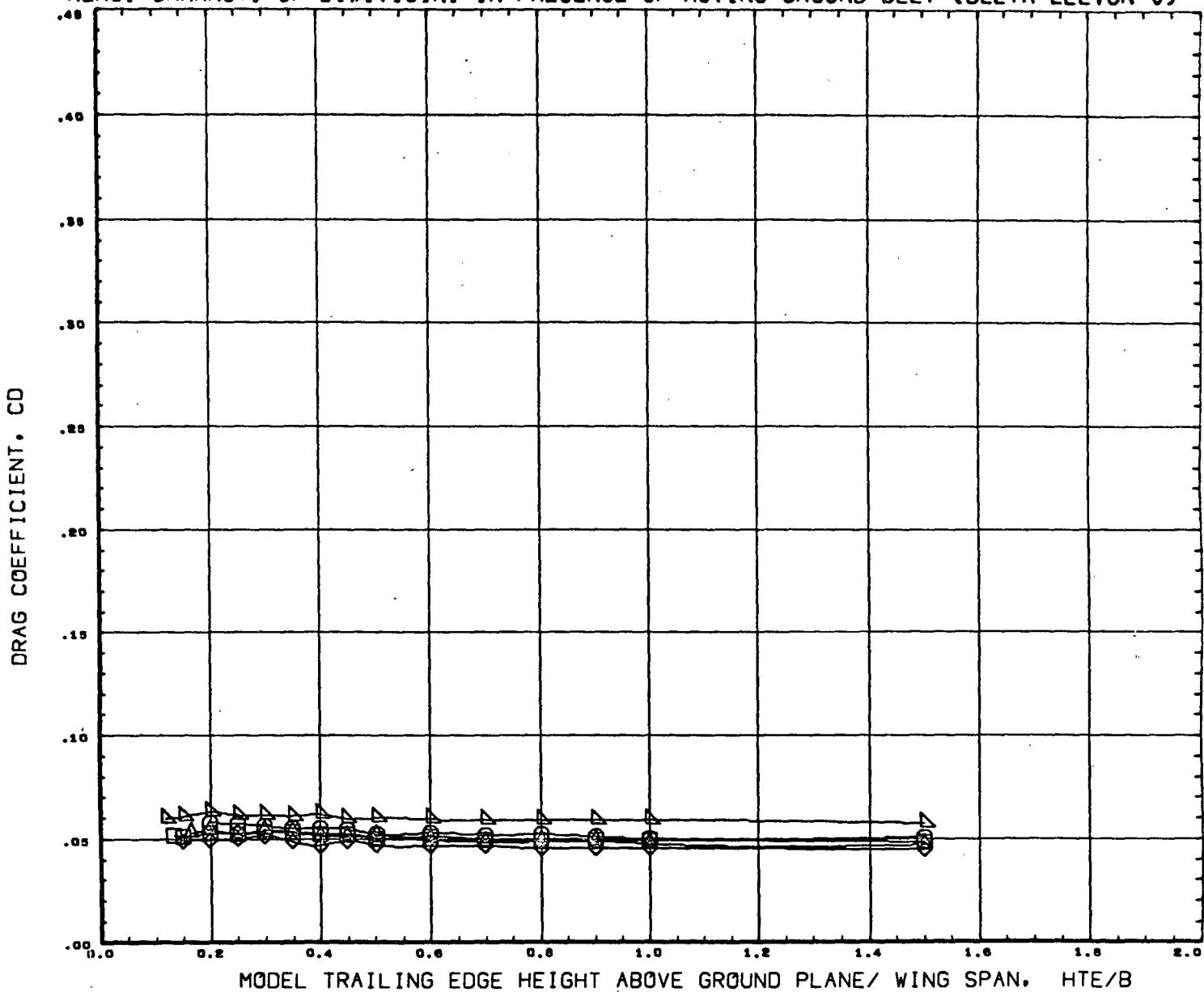
LTV LSWT S-081 B1W1V1G1N1 (BELT MOVING)

(R00008) 07 NOV 72

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55

AERO. CHARACT. OF B1W1V1G1N1 IN PRESENCE OF MOVING GROUND BELT (DELTA ELEVON=0)



MODEL TRAILING EDGE HEIGHT ABOVE GROUND PLANE/ WING SPAN. HTE/B

SYMBOL	ALPHA		PARAMETRIC VALUES	
	- 4.000	ELVN-R	0.000	ELVN-L
	- 2.050	ELEVON	0.000	
	0.000			
	1.970			
	3.930			

REFERENCE INFORMATION		
EF	7.6875	SQ.FT.
EF	8.5400	FEET
EF	3.0760	FEET
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RP	0.0000	INCHES
RP	14.1100	INCHES
ALE	0.0000	

REFERENCE FILE

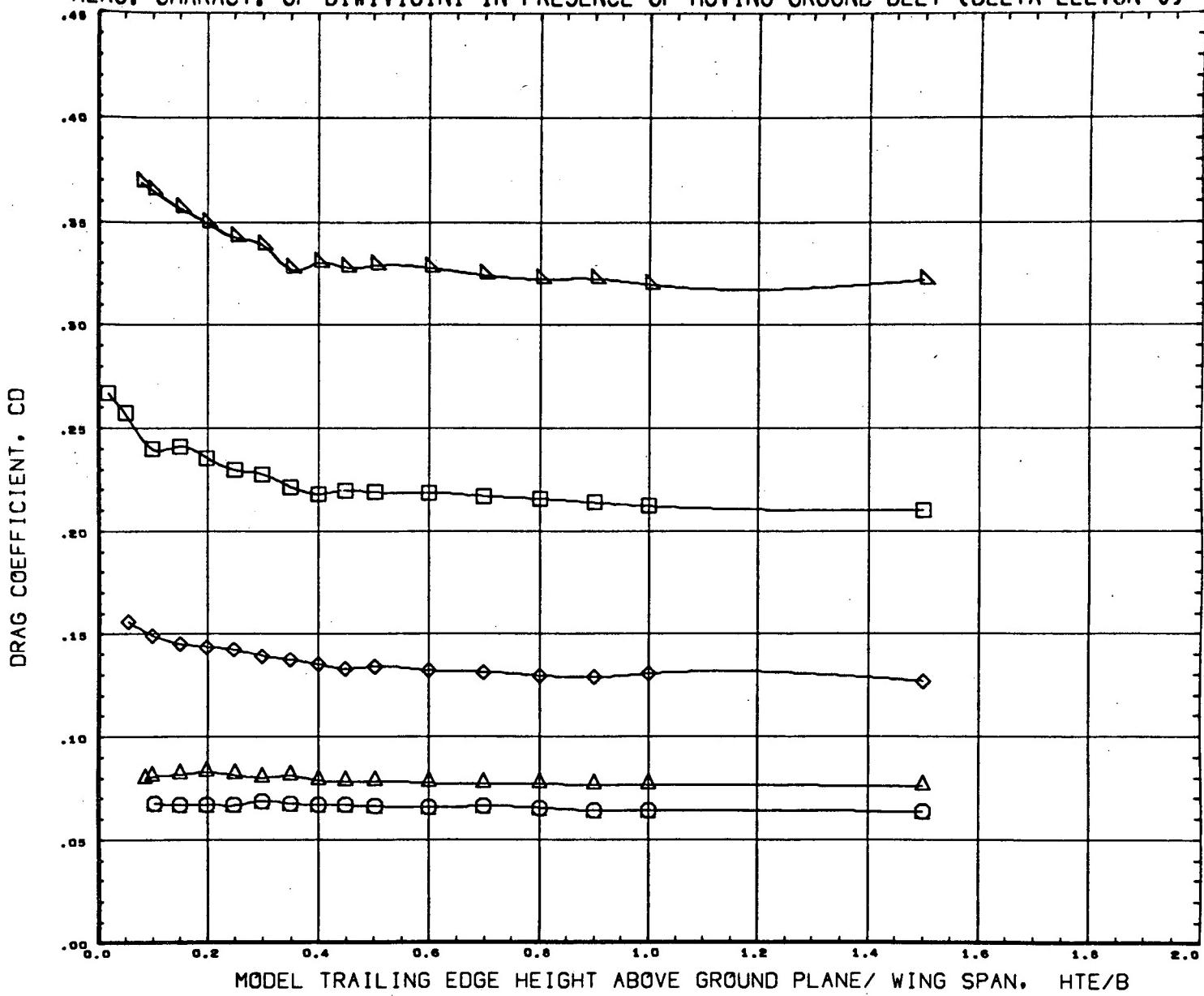
LTV LSWT S-081 B1W1V1G1N1 (BELT MOVING)

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AERO. CHARACT. OF B1W1V1G1N1 IN PRESENCE OF MOVING GROUND BELT (DELTA ELEVON=0)



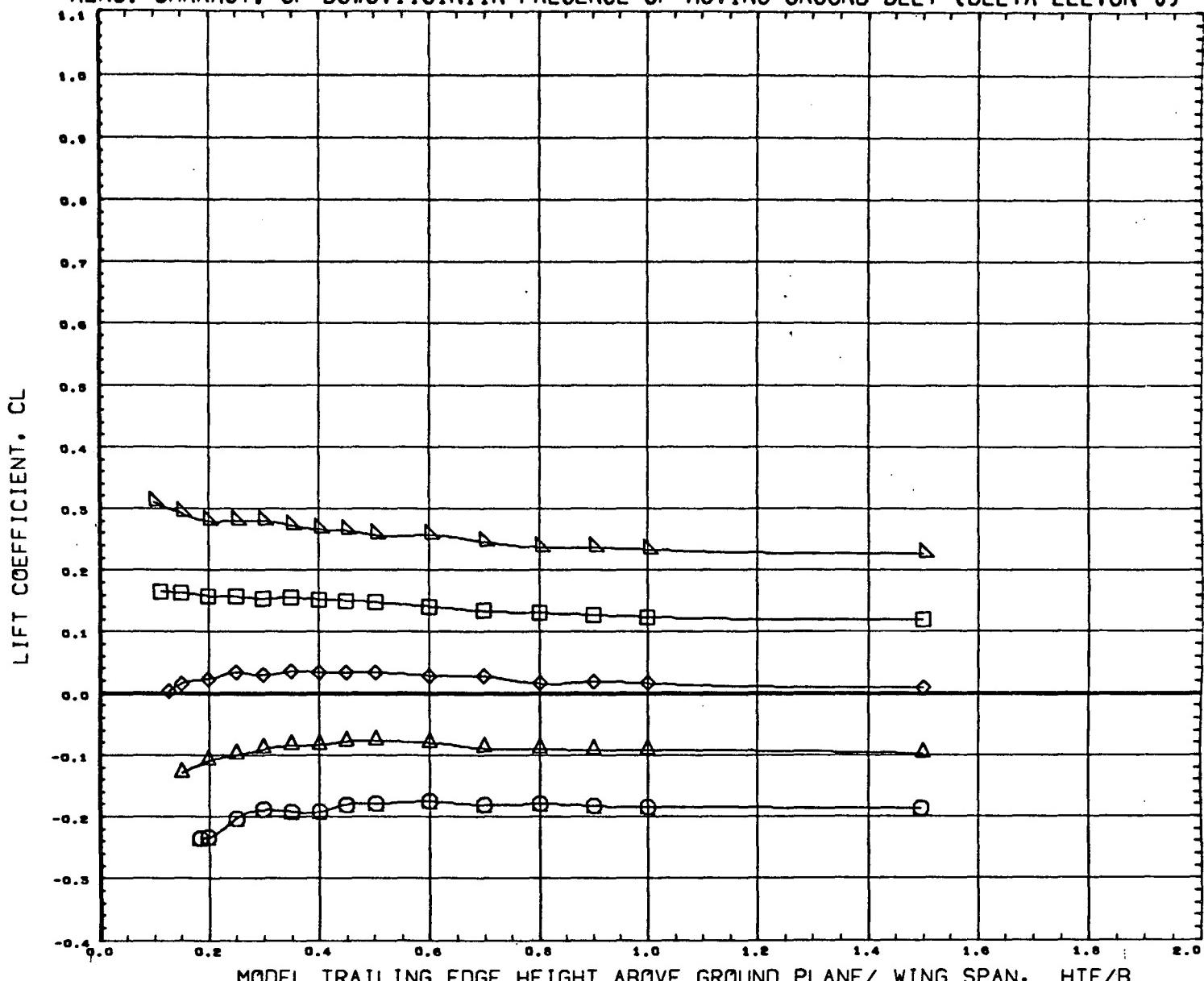
MODEL TRAILING EDGE HEIGHT ABOVE GROUND PLANE/ WING SPAN, HTE/B

SYMBOL	ALPHA	PARAMETRIC VALUES		
		ELVN-R	ELVN-L	0.000
△	6.000	0.000	0.000	
□	7.930	0.000		
◇	11.900			
◆	16.000			
○	20.070			

REFERENCE FILE

REFERENCE INFORMATION		
SREF	7.8875	SQ.FT.
LREF	2.5400	FEET
BREF	3.6760	FEET
XMRP	75.7500	INCHES
YMRP	0.0000	INCHES
ZMRP	14.1100	INCHES
SCALE	0.0000	

AERO. CHARACT. OF B3W5V11G1N1 IN PRESENCE OF MOVING GROUND BELT (DELTA ELEVON=0)



MODEL TRAILING EDGE HEIGHT ABOVE GROUND PLANE/ WING SPAN. HTE/B

SYMBOL	ALPHA	PARAMETRIC VALUES	
		ELVN-R	ELVN-L
○	- 4.000	0.000	0.000
△	- 2.050	0.000	0.000
◊	0.000		
□	1.970		
	3.930		

REFERENCE FILE

LTV LSWT S-081 B3W5V11G1N1(BELT MOVING)

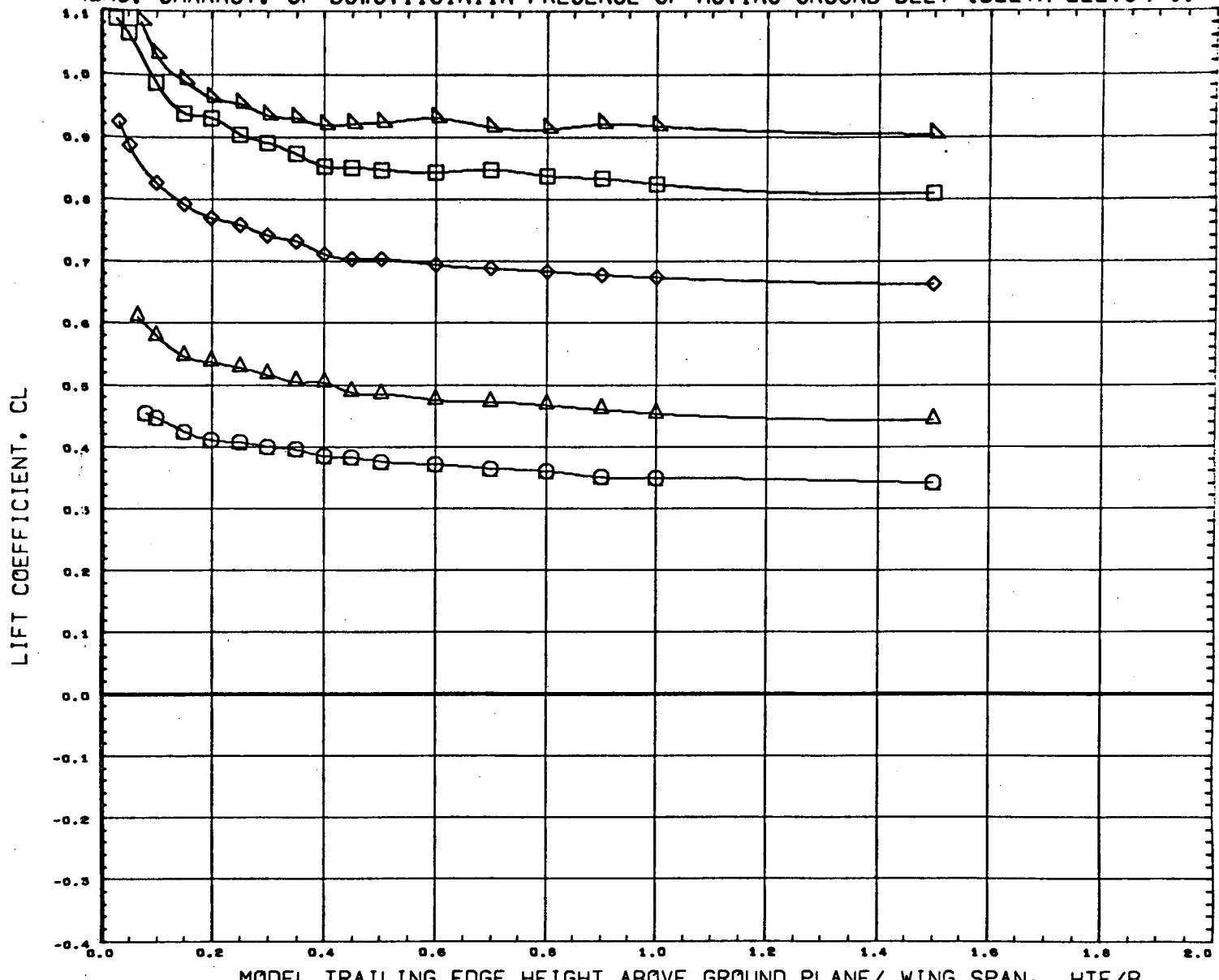
(RDD009) 07 NOV 72

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58

REFERENCE INFORMATION		
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BREF	3.6780	FEET
XMRP	75.7500	INCHES
YMRP	0.0000	INCHES
ZMRP	14.1100	INCHES
SCALE	0.0000	

AERO. CHARACT. OF B3W5V11G1N1 IN PRESENCE OF MOVING GROUND BELT (DELTA ELEVON=0)



MODEL TRAILING EDGE HEIGHT ABOVE GROUND PLANE/ WING SPAN. HTE/B

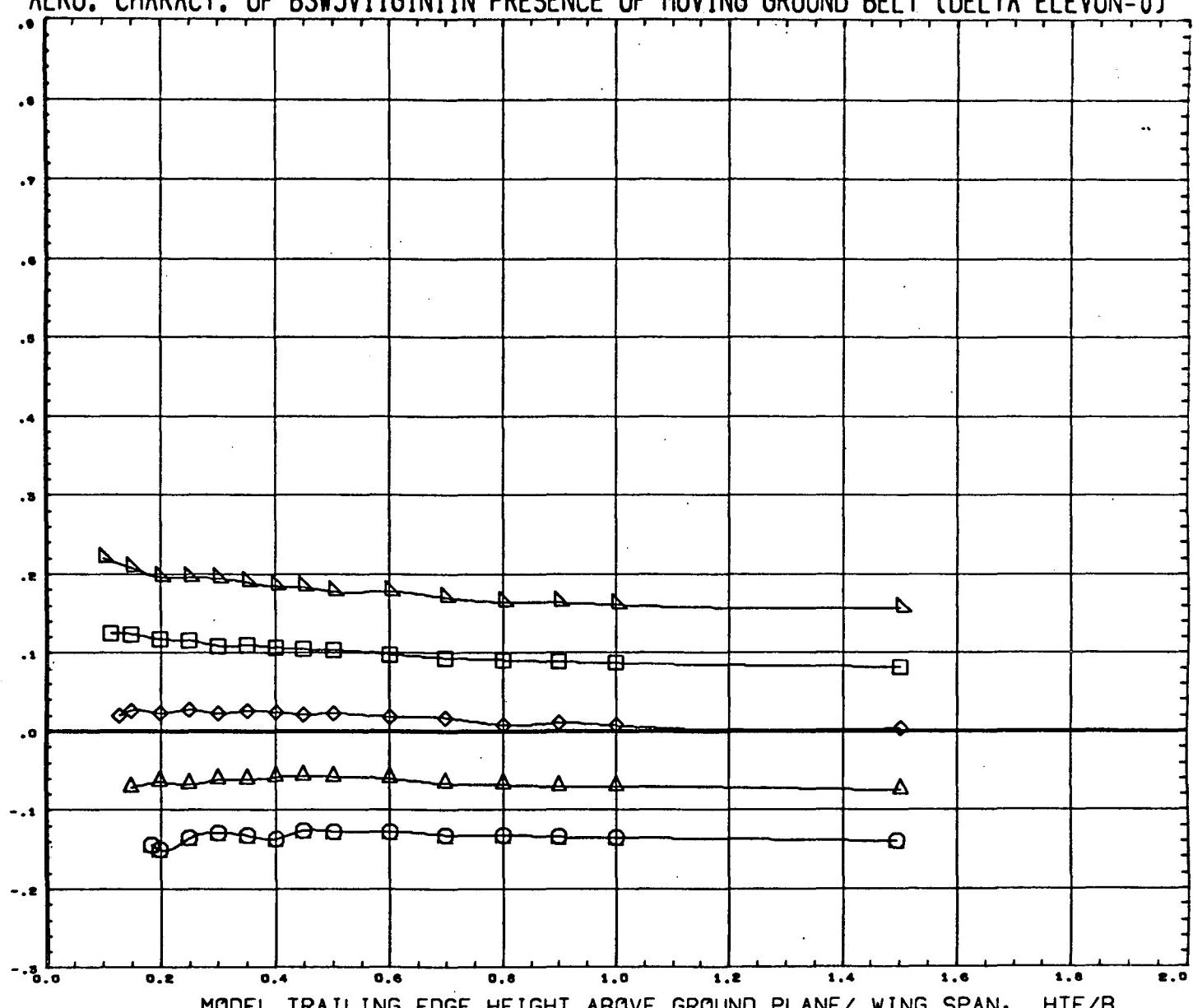
SYMBOL	ALPHA	PARAMETRIC VALUES		0.000
		ELVN-R	ELVN-L	
○	6.000	0.000	0.000	0.000
△	7.930	0.000	0.000	0.000
◊	11.900			
□	16.000			
■	20.070			

REFERENCE FILE

REFERENCE INFORMATION		
SREF	7.8875	SQ.FT.
LREF	2.5400	FEET
BREF	3.6780	FEET
XMRP	75.7500	INCHES
YMRP	0.0000	INCHES
ZMRP	14.1100	INCHES
SCALE	0.0000	

AERO. CHARACT. OF B3W5V11G1N1 IN PRESENCE OF MOVING GROUND BELT (DELTA ELEVON=0)

PITCHING MOMENT COEFFICIENT, CLM



MODEL TRAILING EDGE HEIGHT ABOVE GROUND PLANE/ WING SPAN. HTE/B

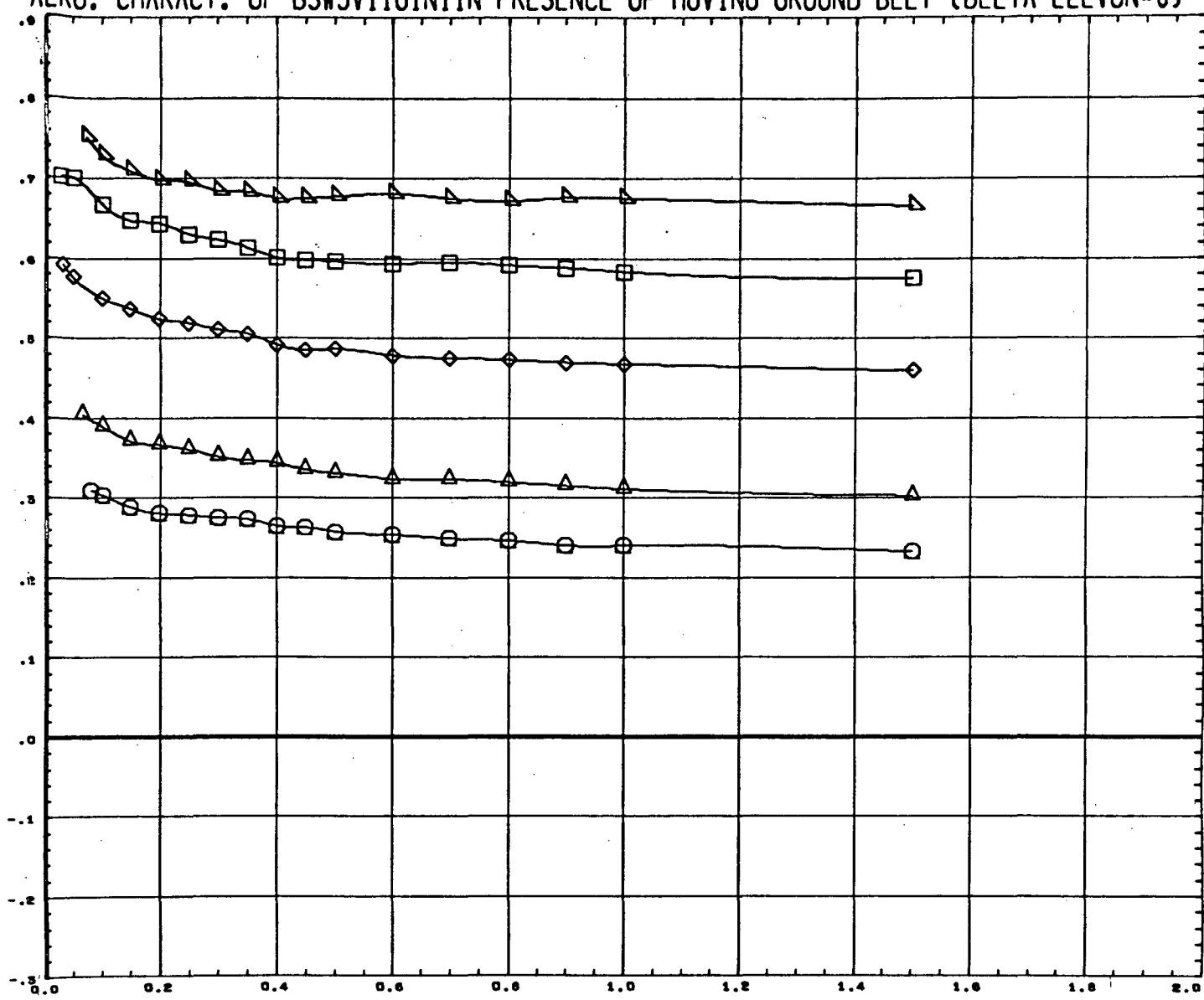
SYMBOL	ALPHA	PARAMETRIC VALUES		
		ELEVN-R	ELEVN-L	0.000
△	- 4.000	0.000	0.000	
△	- 2.050	0.000	0.000	
◊	0.000			
□	1.970			
□	3.930			

REFERENCE FILE

REFERENCE INFORMATION		
SREF	7.8875	SQ.FT.
LREF	2.5400	FEET
BREF	3.6780	FEET
XMRP	75.7500	INCHES
YMRP	0.0000	INCHES
ZMRP	14.1100	INCHES
SCALE	0.0000	

AERO. CHARACT. OF B3W5V11G1N1IN PRESENCE OF MOVING GROUND BELT (DELTA ELEVON=0)

PITCHING MOMENT COEFFICIENT. CLM



MODEL TRAILING EDGE HEIGHT ABOVE GROUND PLANE/ WING SPAN, HTE/B

SYMBOL	ALPHA		PARAMETRIC VALUES		
	6.000	ELVN-R	0.000	ELVN-L	0.000
△	7.930	ELEVON	0.000		
◊	11.900				
□	16.000				
○	20.070				

REFERENCE FILE

REFERENCE INFORMATION		
SREF	7.8675	SQ.FT.
LREF	2.5400	FEET
BREF	3.6780	FEET
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YMRP	0.0000	INCHES
ZMRP	14.1100	INCHES
SCALE	0.0000	INCHES

LTV LSWT S-081 B3W5V11G1N1(BELT MOVING)

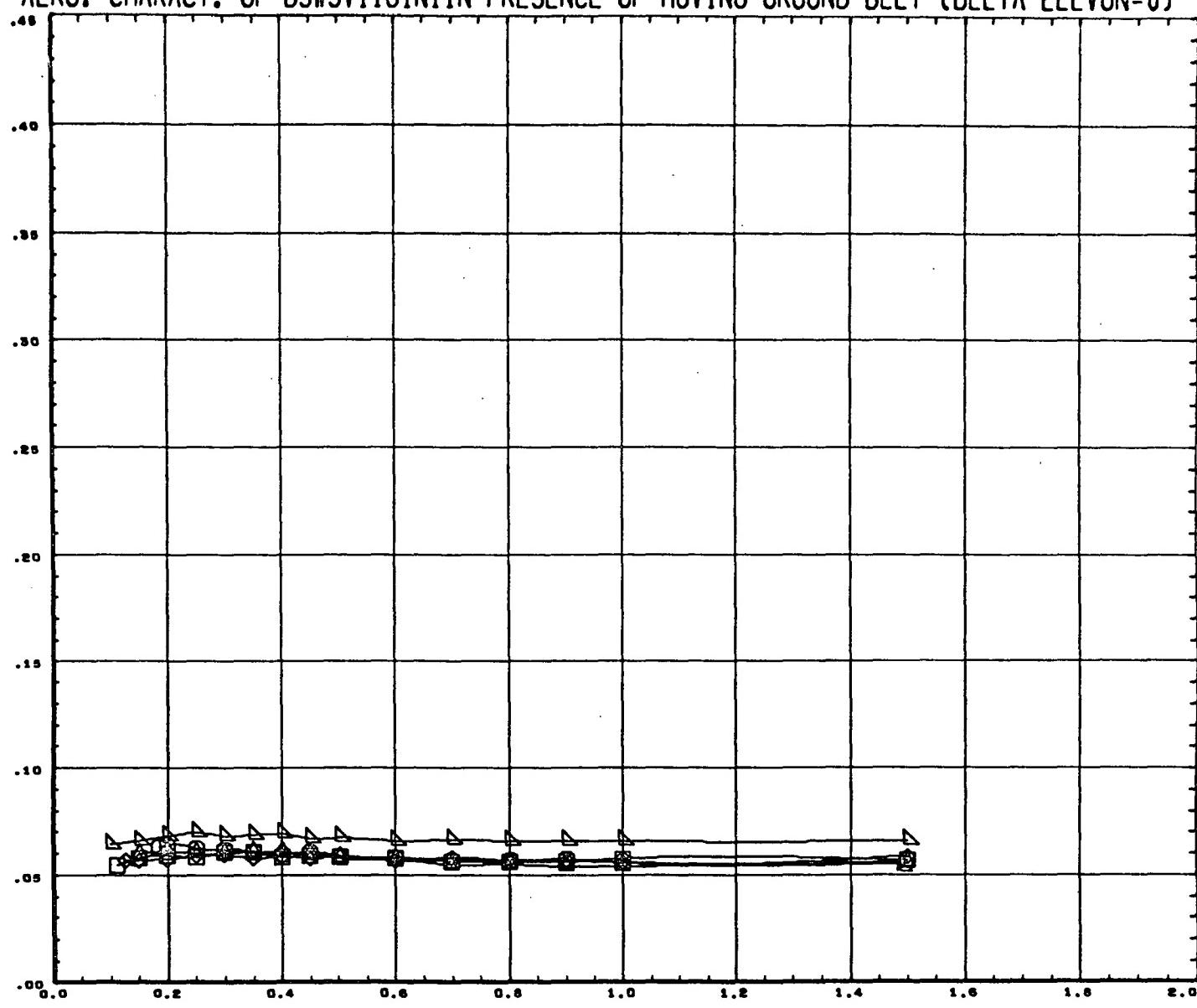
(RDD009) 07 NOV 72

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AERO. CHARACT. OF B3W5V11G1N1 IN PRESENCE OF MOVING GROUND BELT (DELTA ELEVON=0)

DRAG COEFFICIENT. CD



MODEL TRAILING EDGE HEIGHT ABOVE GROUND PLANE/ WING SPAN. HTE/B

SYMBOL	ALPHA	PARAMETRIC VALUES	
		ELVN-R	ELVN-L
○	- 4.000	0.000	0.000
△	- 2.050	0.000	0.000
◊	0.000		
□	1.970		
▽	3.930		

REFERENCE FILE

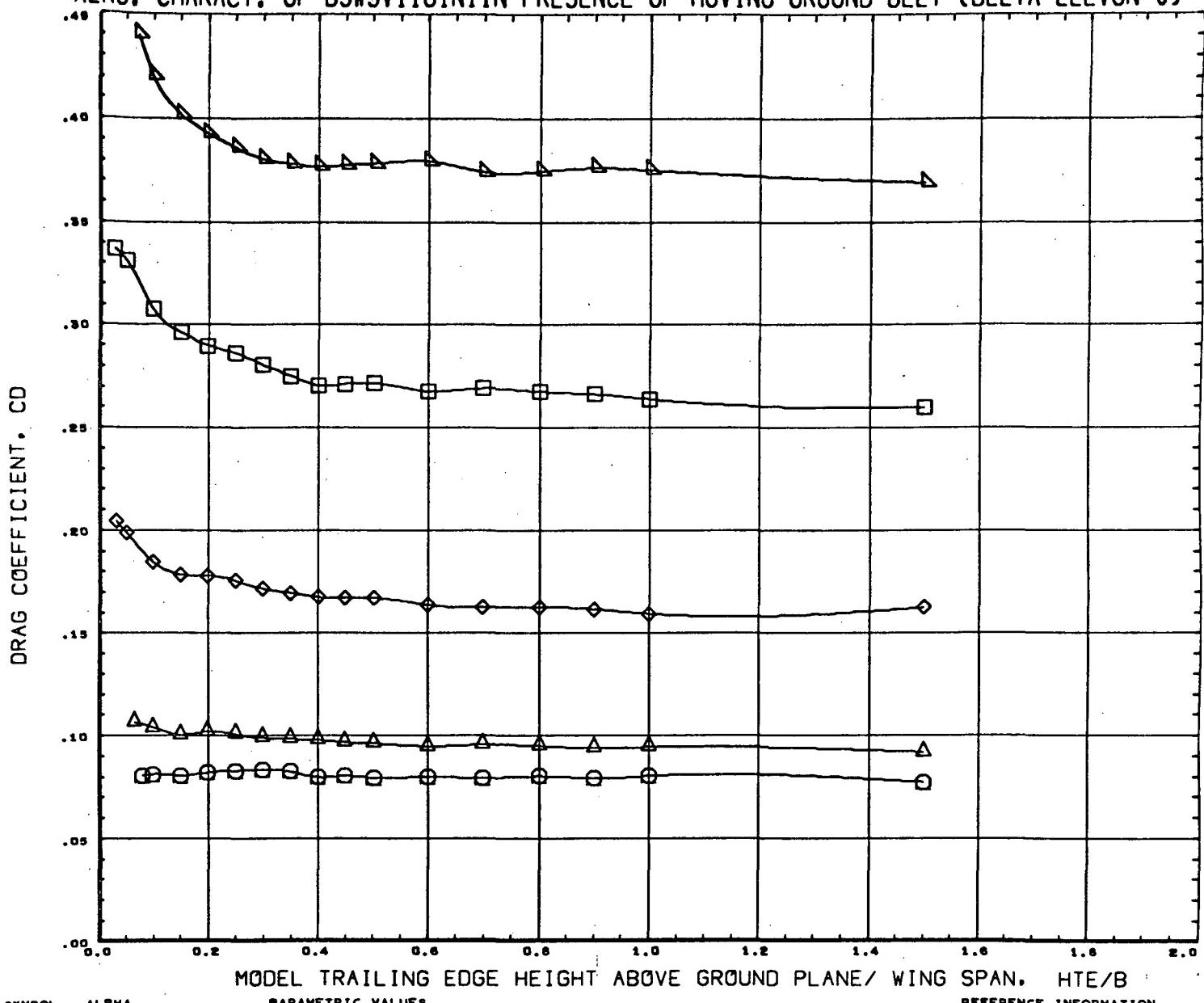
LTV LSWT S-081 B3W5V11G1N1(BELT MOVING)

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REFERENCE INFORMATION		
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LREF	2.5400	FEET
BREF	5.8760	FEET
XMRP	75.7500	INCHES
YMRP	0.0000	INCHES
ZMRP	14.1100	INCHES
SCALE	0.0000	

AERO. CHARACT. OF B3W5V11G1N1 IN PRESENCE OF MOVING GROUND BELT (DELTA ELEVON=0)



SYMBOL

ALPHA                   PARAMETRIC VALUES  
 0.000    ELVN-R    0.000    ELVN-L    0.000  
 7.930    ELEVON    0.000

REFERENCE INFORMATION  
 SREF      7.8875     SQ.FT.  
 LREF      2.5400     FEET  
 BREF      3.6760     FEET  
 XMRP      75.7500    INCHES  
 YMRP      0.0000     INCHES  
 ZMRP      14.1100    INCHES  
 SCALE     0.0000

REFERENCE FILE

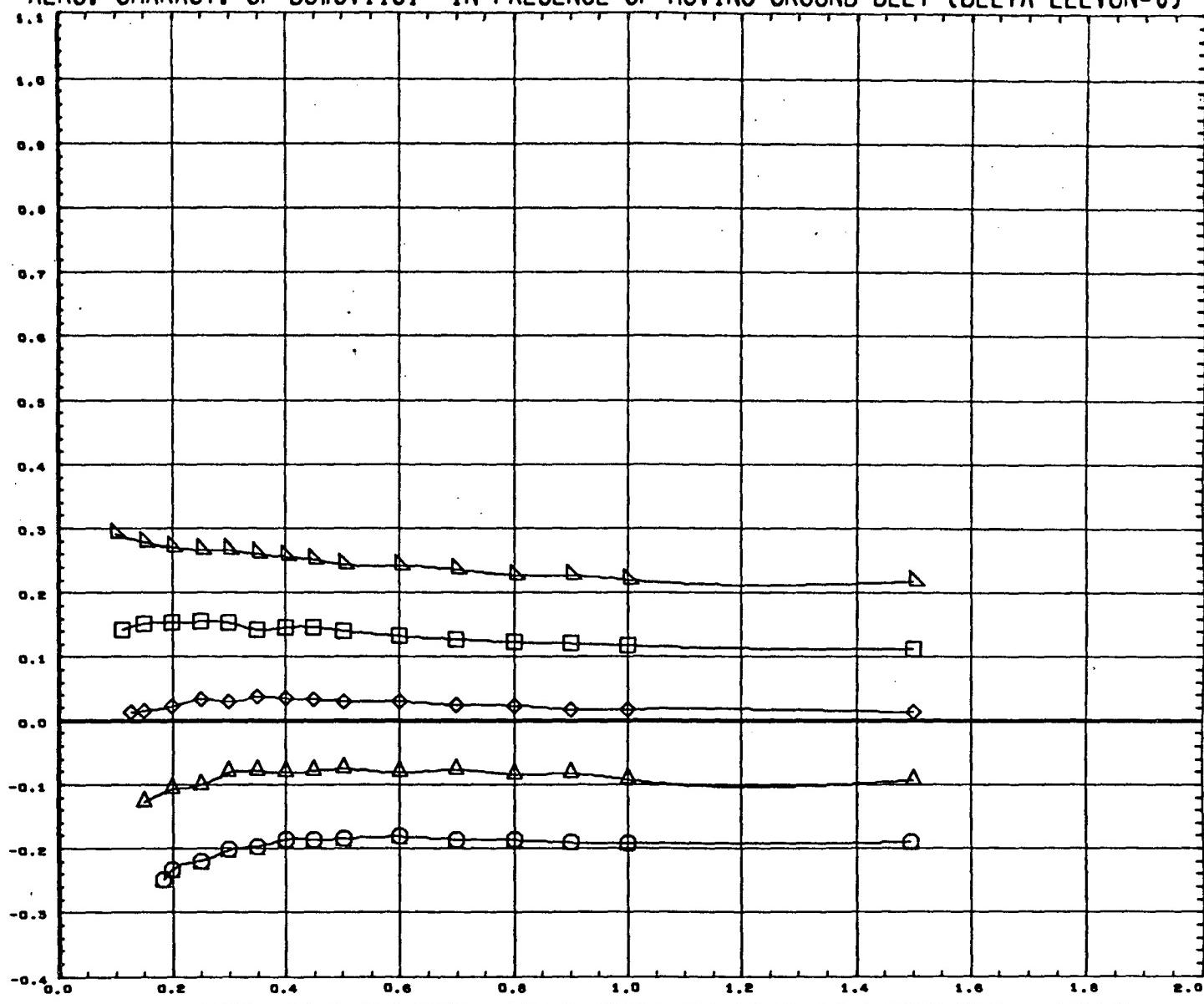
LTV LSWT S-081 B3W5V11G1N1(BELT MOVING)

(RDD009) 07 NOV 72

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AERO. CHARACT. OF B3W5V11G1 IN PRESENCE OF MOVING GROUND BELT (DELTA ELEVON=0)

LIFT COEFFICIENT. CL



MODEL TRAILING EDGE HEIGHT ABOVE GROUND PLANE/ WING SPAN. HTE/B

SYMBOL	ALPHA	PARAMETRIC VALUES		
		ELVN-R	ELVN	ELVN-L
Δ	- 4.000	0.000	0.000	0.000
◊	- 2.050	0.000	0.000	0.000
□	0.000	0.000	0.000	0.000
○	1.970	0.000	0.000	0.000
△	3.930	0.000	0.000	0.000

REFERENCE FILE

REFERENCE INFORMATION		
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LREF	2.5400	FEET
BREF	3.6760	FEET
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YMRP	0.0000	INCHES
ZMRP	24.1100	INCHES
SCALE	0.0000	

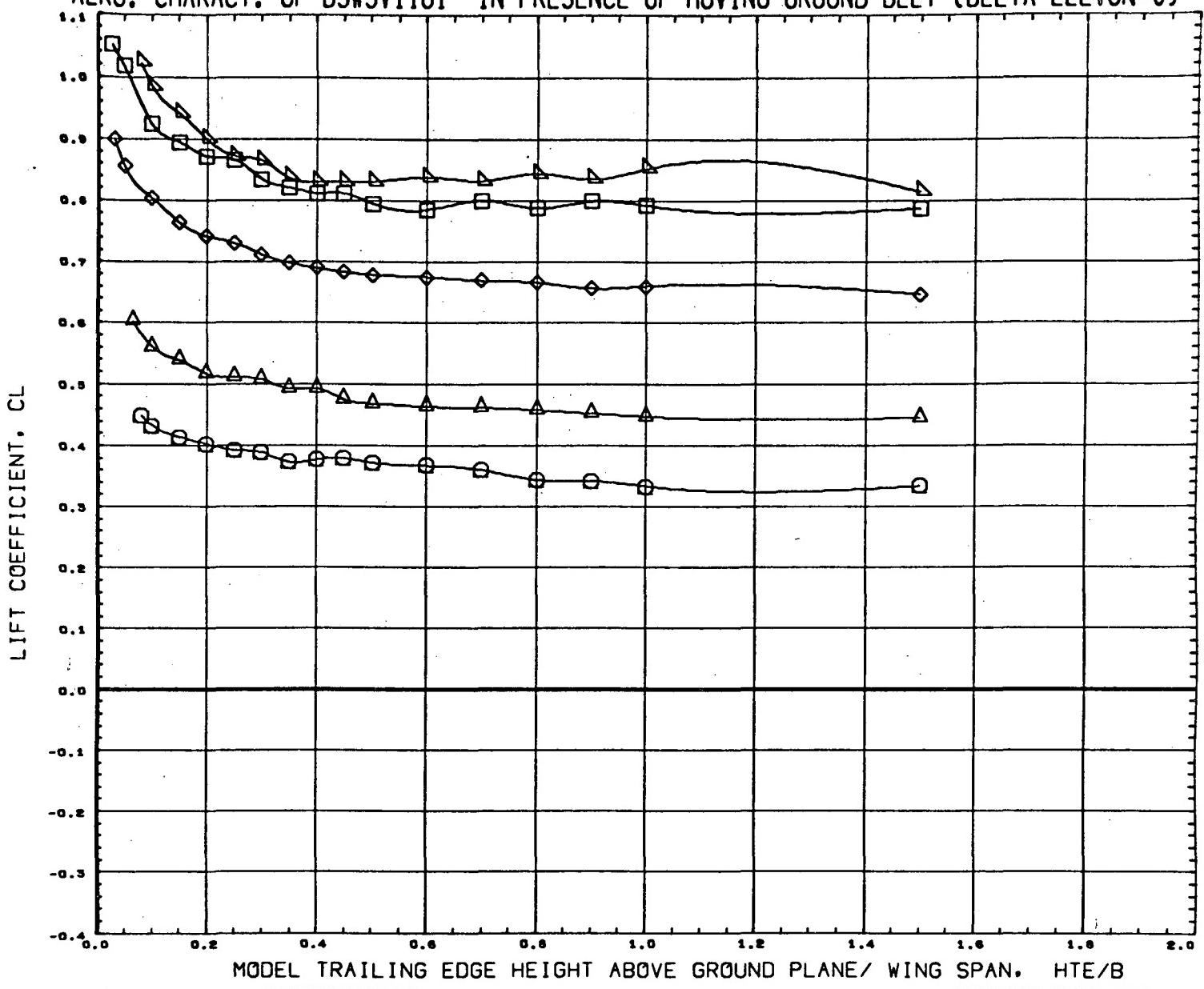
LTV LSWT S-081 B3W5V11G1 (BELT MOVING)

(R00010) 07 NOV 72

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AERO. CHARACT. OF B3W5V11G1 IN PRESENCE OF MOVING GROUND BELT (DELTA ELEVON=0)



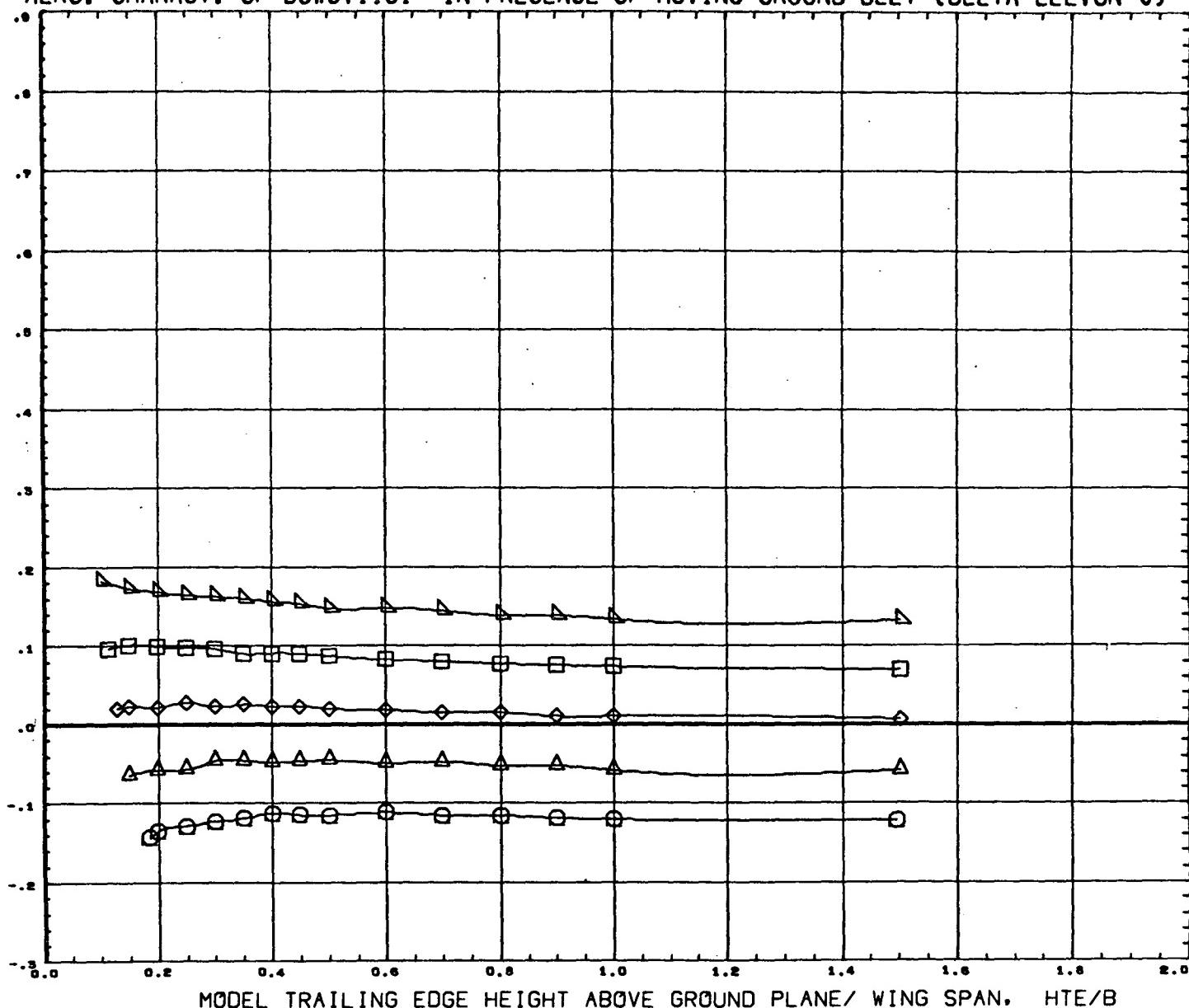
SYMBOL	ALPHA	PARAMETRIC VALUES	
		ELVN-R	ELVN-L
□	6.000	0.000	0.000
△	7.930	0.000	0.000
◊	11.900		
○	16.000		
◇	20.070		

REFERENCE FILE

REFERENCE INFORMATION		
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LREF	2.5400	FEET
BREF	3.6780	FEET
XNRP	75.7500	INCHES
YNRP	0.0000	INCHES
ZNRP	14.1100	INCHES
SCALE	0.0000	INCHES

AERO. CHARACT. OF B3W5V11G1 IN PRESENCE OF MOVING GROUND BELT (DELTA ELEVON=0)

PITCHING MOMENT COEFFICIENT, CLM



MODEL TRAILING EDGE HEIGHT ABOVE GROUND PLANE/ WING SPAN, HTE/B

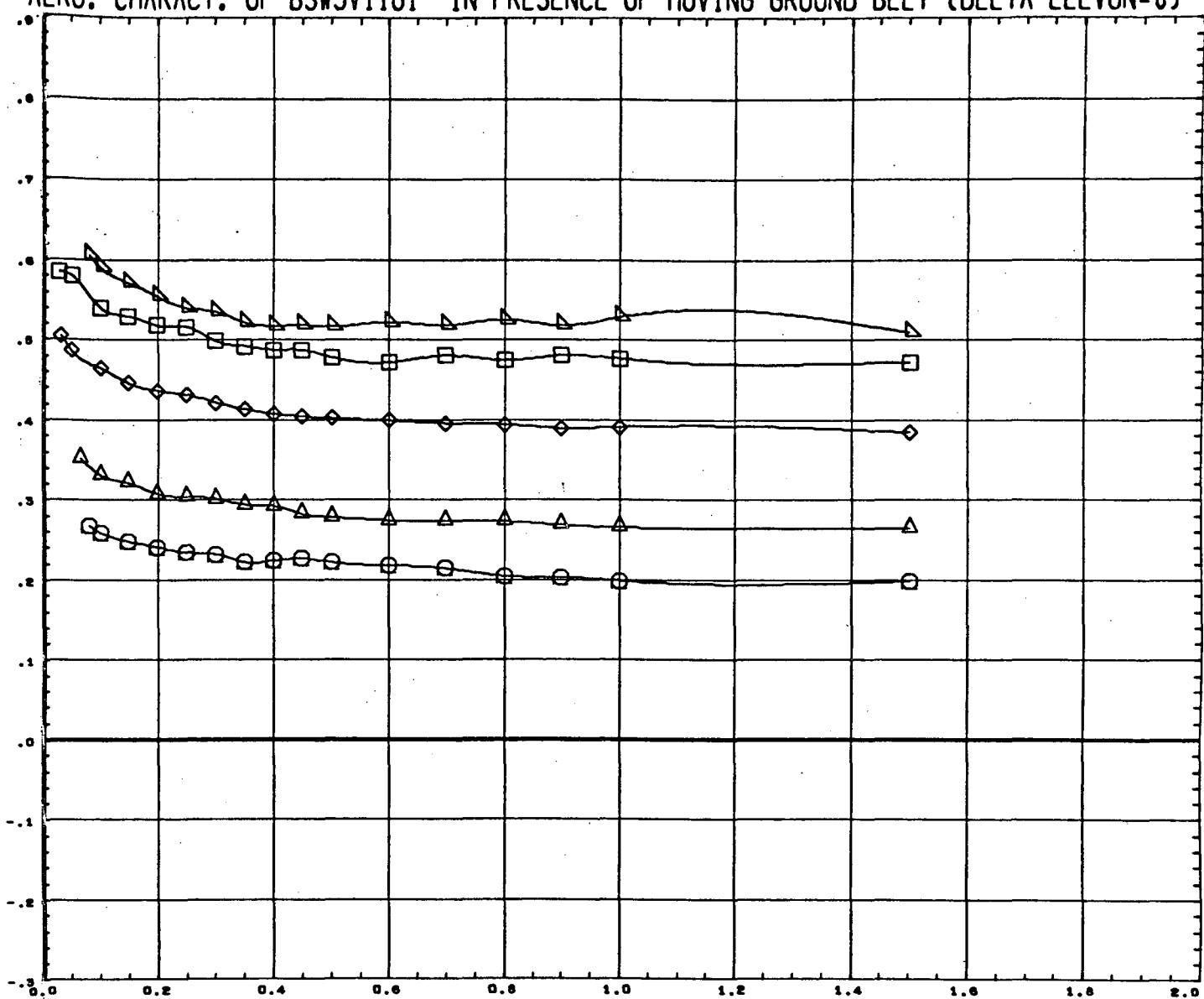
SYMBOL	ALPHA	PARAMETRIC VALUES	
		ELVN-R	ELVN-L
○	- 4.000	0.000	0.000
△	- 2.050	ELEVON	0.000
◊	0.000		
×	1.970		
□	3.930		

REFERENCE FILE

REFERENCE INFORMATION		
SREF	7.8875	SQ.FT.
LREF	2.8400	FEET
BREF	3.6780	FEET
XMRP	75.7500	INCHES
YMRP	0.0000	INCHES
ZMRP	14.1100	INCHES
SCALE	0.0000	

AERO. CHARACT. OF B3W5V11G1 IN PRESENCE OF MOVING GROUND BELT (DELTA ELEVON=0)

PITCHING MOMENT COEFFICIENT. CLM



MODEL TRAILING EDGE HEIGHT ABOVE GROUND PLANE/ WING SPAN. HTE/B

SYMBOL	ALPHA	PARAMETRIC VALUES	
		ELVN-R	ELVN-L
○	6.000	0.000	0.000
△	7.930	0.000	0.000
◊	11.900		
□	16.000		
◇	20.070		

REFERENCE FILE

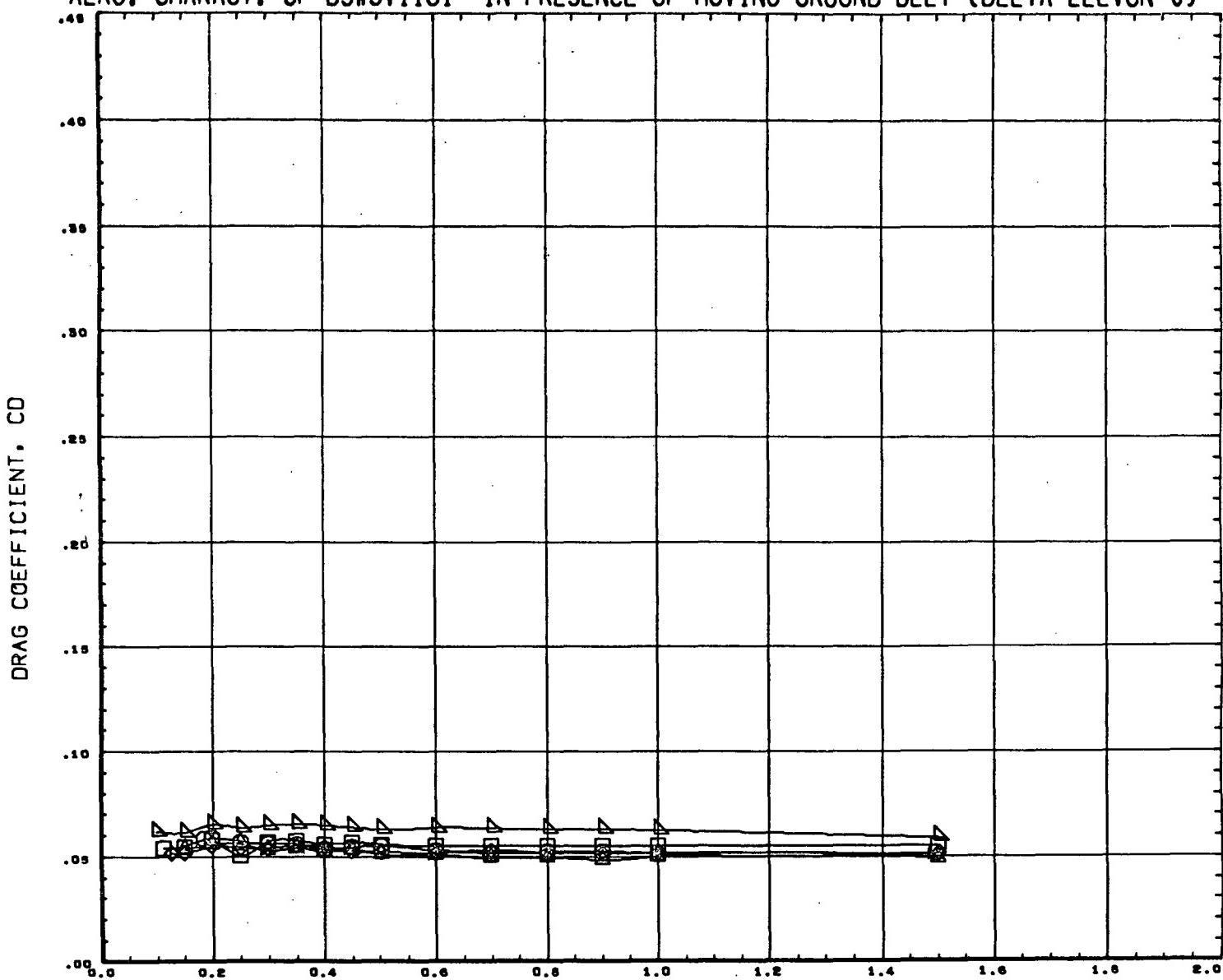
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BREF	3.6760	FEET
XMRP	75.7500	INCHES
YMRP	0.0000	INCHES
ZMRP	14.1100	INCHES
SCALE	0.0000	

LTV LSWT S-081 B3W5V11G1 (BELT MOVING)

(R00010) 07 NOV 72

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AERO. CHARACT. OF B3W5V11G1 IN PRESENCE OF MOVING GROUND BELT (DELTA ELEVON=0)



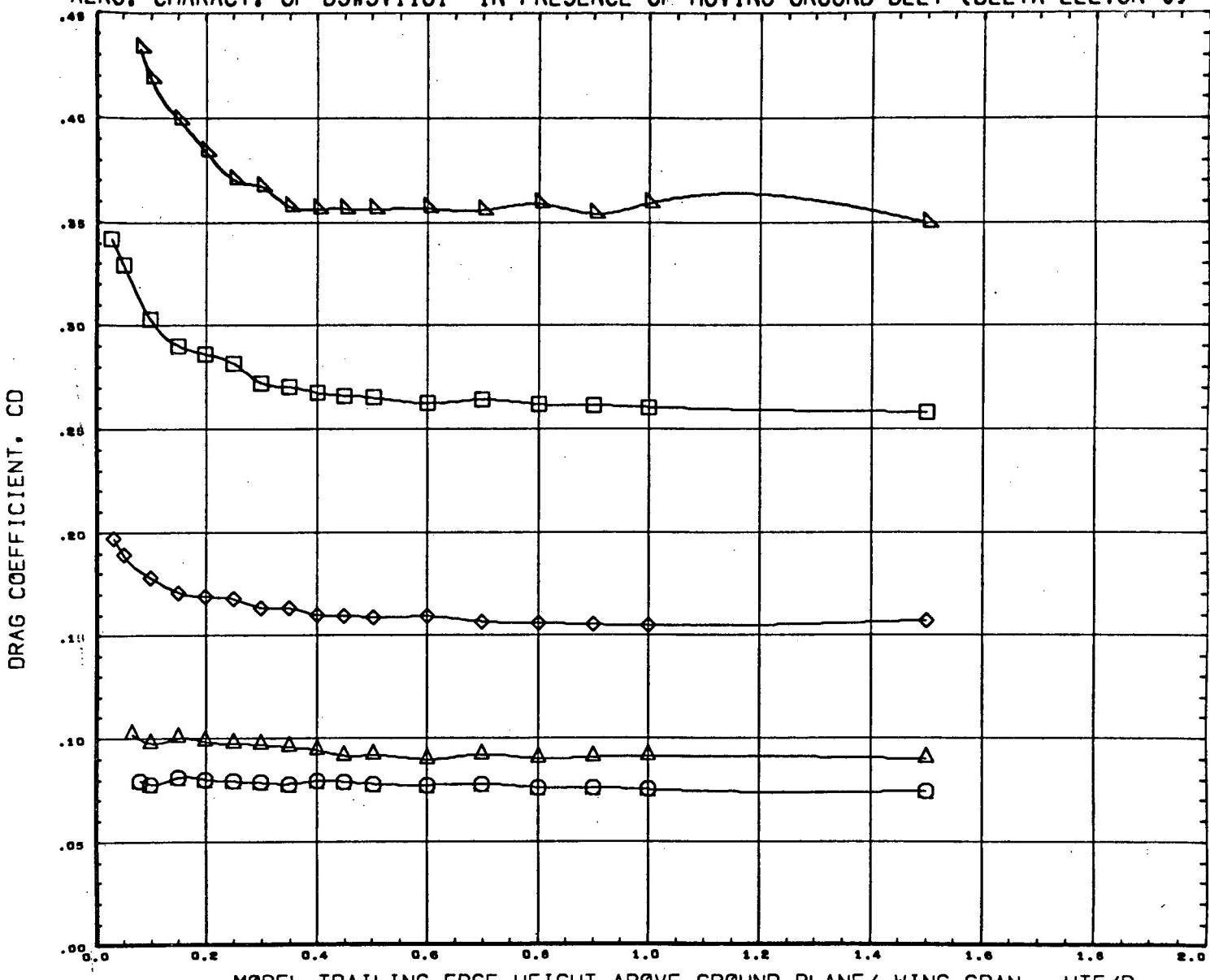
MODEL TRAILING EDGE HEIGHT ABOVE GROUND PLANE/ WING SPAN. HTE/B

SYMBOL	ALPHA	PARAMETRIC VALUES		
		ELVN-R	ELVN-L	0.000
-	4.000	0.000	0.000	0.000
-	2.050	ELEVON	0.000	
◊	0.000			
△	1.970			
□	3.930			

REFERENCE FILE

REFERENCE INFORMATION		
SREF	7.8675	SQ.FT.
LREF	2.5400	FEET
BREF	3.6780	FEET
XMRP	75.7500	INCHES
YMRP	0.0000	INCHES
ZMRP	14.1100	INCHES
SCALE	0.0000	

AERO. CHARACT. OF B3W5V11G1 IN PRESENCE OF MOVING GROUND BELT (DELTA ELEVON=0)



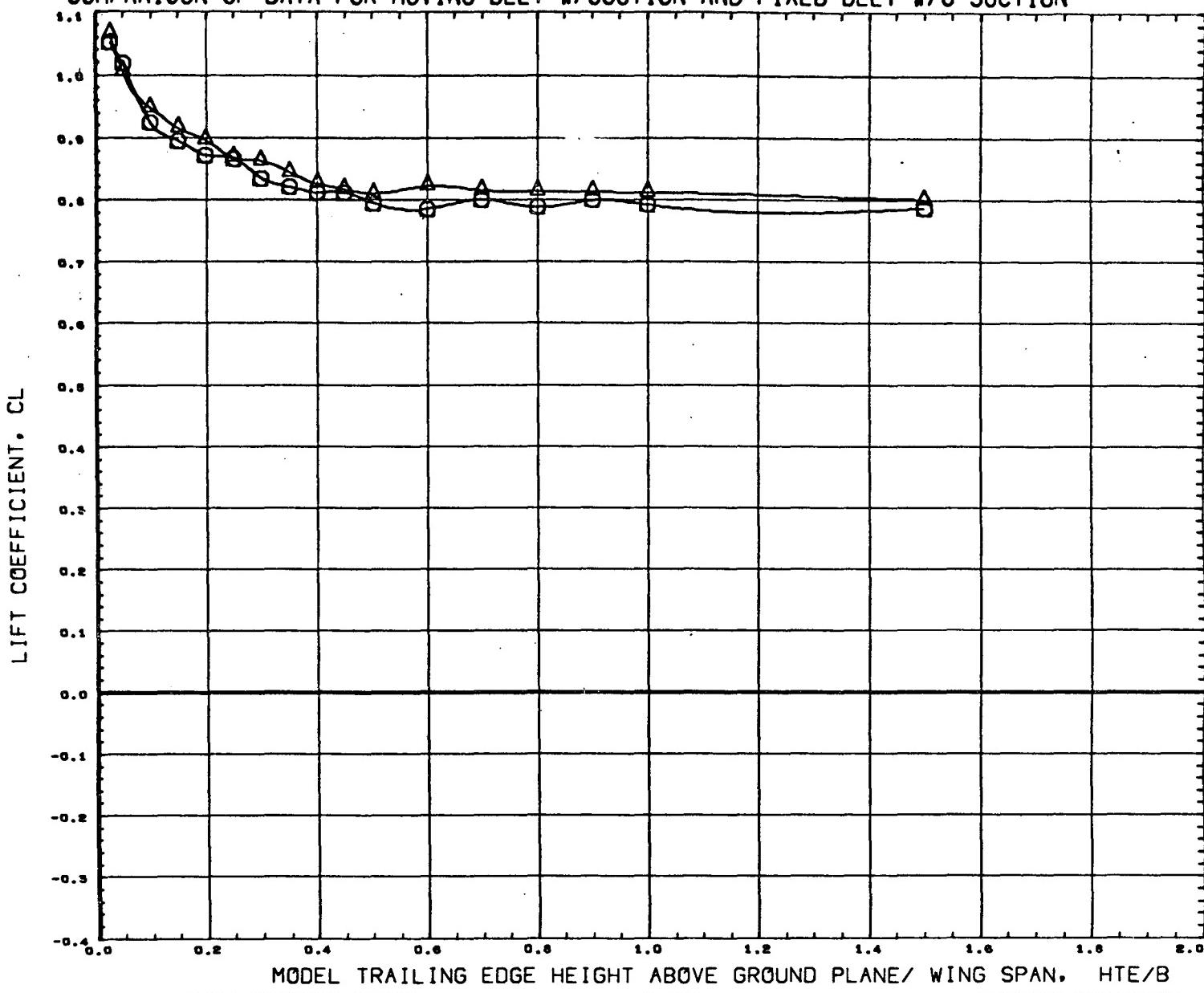
MODEL TRAILING EDGE HEIGHT ABOVE GROUND PLANE/ WING SPAN, HTE/B

SYMBOL      ALPHA                            PARAMETRIC VALUES  
               6.000    ELVN-R    0.000    ELVN-L    0.000  
               7.930    ELEVON     0.000  
               11.900  
               16.000  
               20.070

REFERENCE FILE

REFERENCE INFORMATION  
               SREF      7.8675      SQ.FT.  
               LREF      2.5400      FEET  
               BREF      3.6780      FEET  
               XMRP      75.7500     INCHES  
               YMRP      0.0000      INCHES  
               ZMRP      14.1100     INCHES  
               SCALE      0.0000

COMPARISON OF DATA FOR MOVING BELT W/SUCTION AND FIXED BELT W/O SUCTION



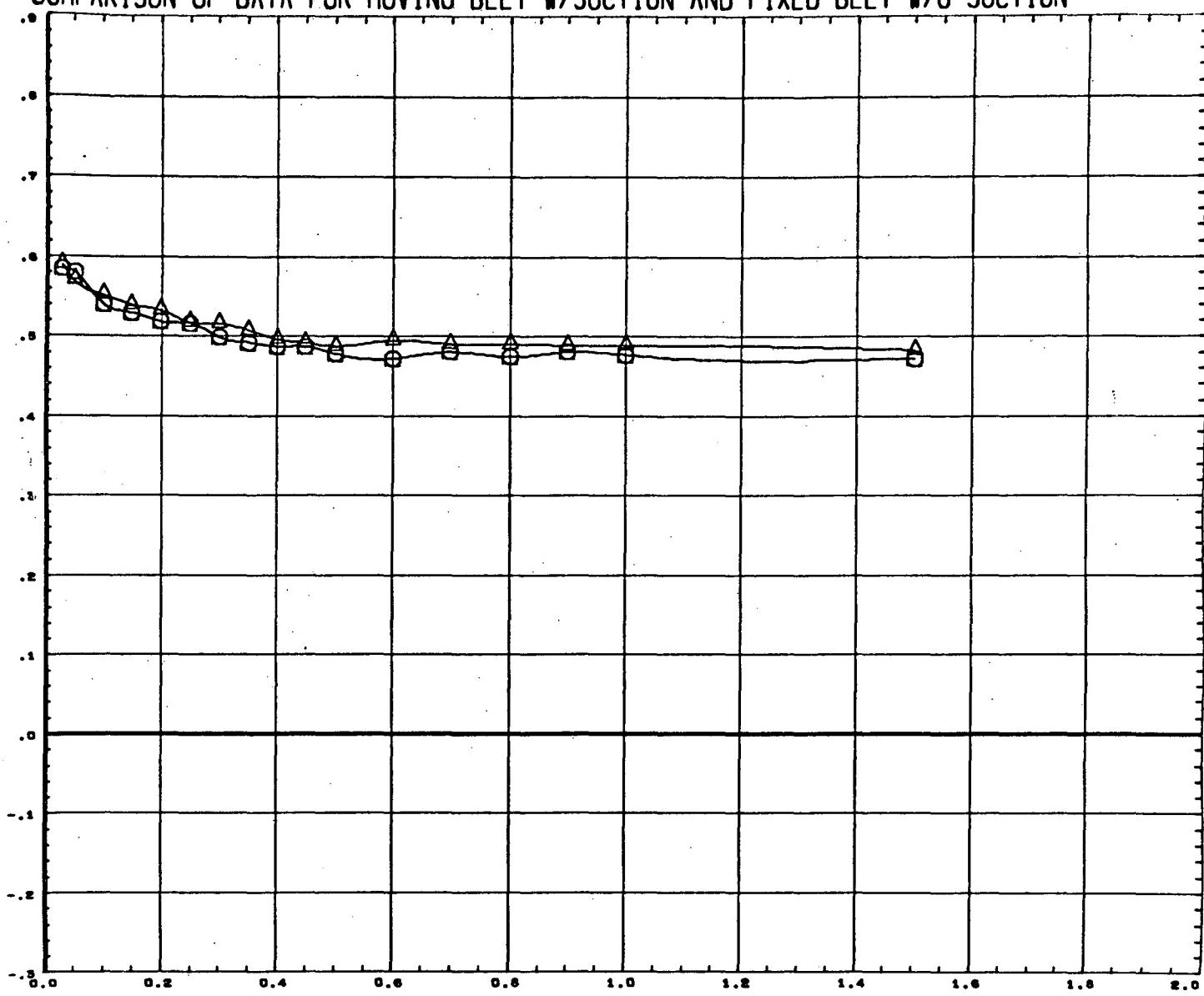
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 (RDD011) A LTV LSWT S-081 B3W5V11C1 (BELT STATIONARY)

ELEVON  
 0.000  
 0.000

REFERENCE INFORMATION
SREF 7.8875 SQ.FT.
LREF 2.5400 FEET
BREF 3.6780 FEET
XMRP 79.7500 INCHES
YMRP 0.0000 INCHES
ZMRP 14.1100 INCHES
SCALE 0.0000

COMPARISON OF DATA FOR MOVING BELT W/SUCTION AND FIXED BELT W/O SUCTION

PITCHING MOMENT COEFFICIENT. CLM



MODEL TRAILING EDGE HEIGHT ABOVE GROUND PLANE/ WING SPAN. HTE/B

DATA SET SYMBOL CONFIGURATION DESCRIPTION  
 (R00010) Q LTV LSWT S-081 B3W5V11G1 (BELT MOVING)  
 (R00011) A LTV LSWT S-081 B3W5V11G1 (BELT STATIONARY)

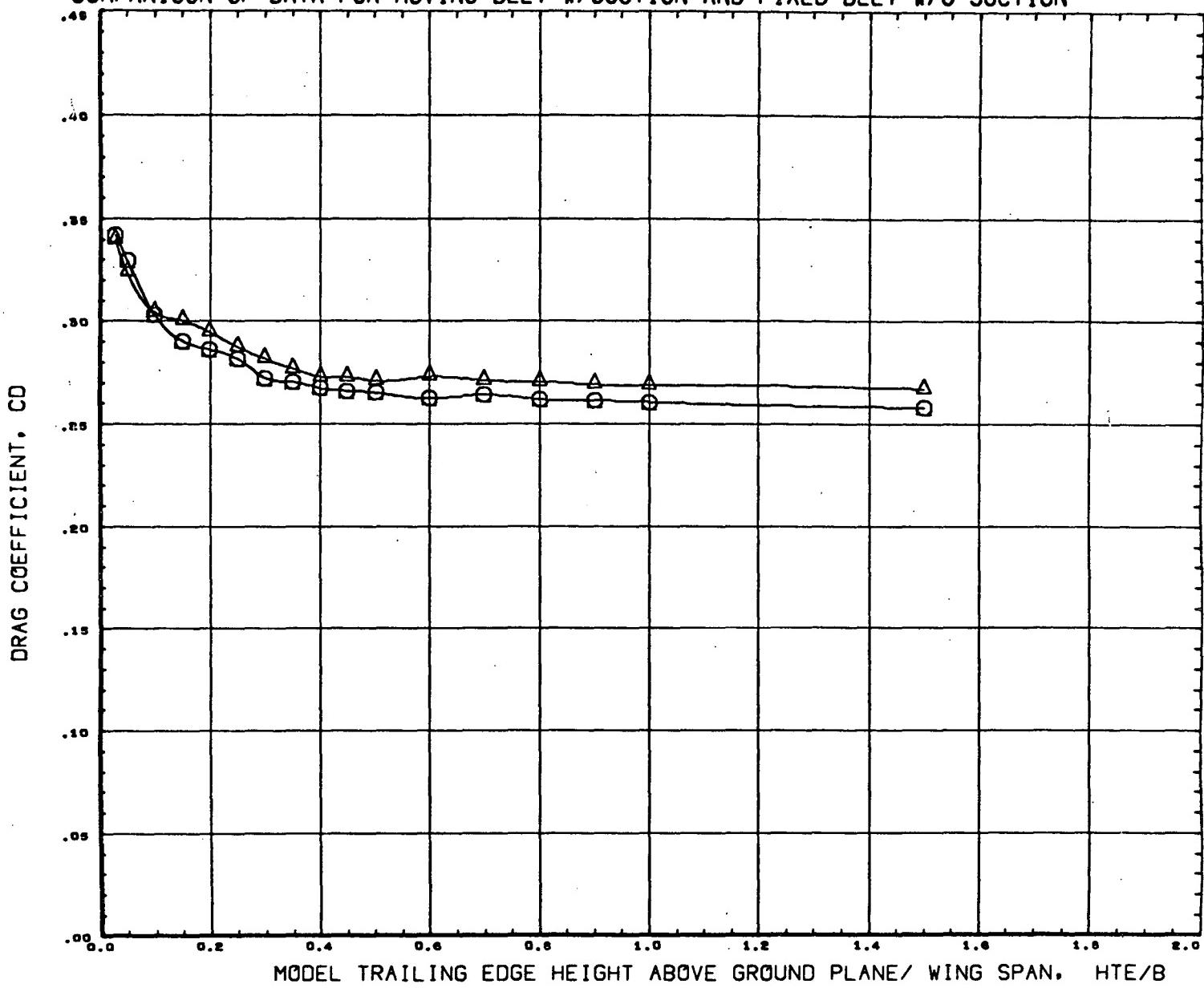
ELEVON  
0.000  
0.000

REFERENCE INFORMATION  
 SREF 7.8875 SQ.FT.  
 LREF 2.5400 FEET  
 BREF 3.6780 FEET  
 XMRP 75.7500 INCHES  
 YMRP 0.0000 INCHES  
 ZMRP 14.1100 INCHES  
 SCALE 0.0000

ALPHA 16.00

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COMPARISON OF DATA FOR MOVING BELT W/SUCTION AND FIXED BELT W/O SUCTION



MODEL TRAILING EDGE HEIGHT ABOVE GROUND PLANE/ WING SPAN, HTE/B

DATA SET SYMBOL	CONFIGURATION DESCRIPTION
(RDD010)	LTV LSWT S-081 BSW5V1161 (BELT MOVING)
(RDD011)	LTV LSWT S-081 BSW5V1161 (BELT STATIONARY)

ELEVON
0.000
0.000

REFERENCE INFORMATION
SREF 7.8875 SQ.FT.
LREF 2.5400 FEET
BREF 3.6780 FEET
XMRP 75.7500 INCHES
YMRP 0.0000 INCHES
ZMRP 14.1100 INCHES
SCALE 0.0000

A P P E N D I X  
TABULATED SOURCE DATA LISTING

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Tabulations of the plotted data are available from  
SADSAC Operations on request.

DATE OF NOV 72

## TABULATED SOURCE DATA - MSC/LTV MA1

PAGE 1

LTV LWT S-081 B1WIVIG1 (BELT MOVING)

(R00001) (07 NOV 72)

## REFERENCE DATA

BREF = 7.6675 SQ.FT. XMRP = 75.7500 INCHES  
 LREF = 2.5400 FEET YMRP = .0000 INCHES  
 BREF = 3.6760 FEET ZMRP = 14.1100 INCHES  
 SCALE = .0000

## PARAMETRIC DATA

ELVN-R = .000 ELVN-L = .000  
 ELEVON = .000

RUN NO. S/ O RN/L = .44 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA	HTE/B	CL	CD	CN	CA	Q(PSF)	CY	CBL	CYN	CAB	CLM
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-4.000	.249	-.14906	.05097	-.15225	.04045	6.35993	.00632	.00271	.00028	-.01645	-.10564
-4.000	.299	-.13184	.05137	-.13510	.04205	6.31999	.00959	.00314	.00073	-.01588	-.09665
-4.000	.349	-.12572	.05093	-.12897	.04203	6.32503	.00954	.00266	.00071	-.01633	-.09358
-4.000	.399	-.11910	.05027	-.12231	.04184	6.35856	.00639	.00221	.00102	-.01500	-.09012
-4.000	.448	-.12168	.05008	-.12467	.04148	6.41810	.00932	.00063	.00211	-.01506	-.09315
-4.000	.501	-.11661	.04921	-.11976	.04096	6.49860	.01221	.00054	.00249	-.01538	-.08952
-4.000	.600	-.10893	.04803	-.11201	.04032	6.60751	.00607	-.00031	.00306	-.01565	-.08475
-4.000	.698	-.11436	.04827	-.11745	.04018	6.62901	.00605	-.00026	.00232	-.01364	-.08821
-4.000	.800	-.11928	.04744	-.12230	.03900	6.62043	.00014	-.00107	.00220	-.01313	-.09207
-4.000	.900	-.11943	.04749	-.12245	.03904	6.61065	.00017	-.00011	.00152	-.01320	-.09176
-4.000	1.000	-.11609	.04731	-.11910	.03910	6.60087	.00310	-.00013	.00119	-.01364	-.08946
-4.000	1.501	-.12297	.04611	-.12603	.03942	6.55176	.00010	-.00099	.00074	-.01409	-.09617
GRADIENT		.02266	-.00369	.02286	-.00210	.23436	-.00876	-.00391	.00048	.00252	.00973

RUN NO. S/ O RN/L = .45 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA	HTE/B	CL	CD	CN	CA	Q(PSF)	CY	CBL	CYN	CAB	CLM
-2.050	.165	-.07482	.04904	-.07652	.04633	6.44184	.00347	.00433	-.00020	-.01547	-.04263
-2.050	.199	-.06132	.04898	-.06303	.04675	6.39350	-.00268	.00495	-.00026	-.01662	-.03691
-2.050	.249	-.05110	.04772	-.05277	.04586	6.34438	.00023	.00301	.00011	-.01522	-.03507
-2.050	.299	-.05925	.04682	-.04097	.04739	6.31999	-.00287	.00356	.00048	-.01599	-.02948
-2.050	.349	-.04171	.04750	-.04338	.04597	6.33475	.00018	.00298	.00089	-.01476	-.03240
-2.050	.399	-.04506	.04863	-.04677	.04699	6.37605	.00317	.00199	-.00024	-.01664	-.03540
-2.050	.448	-.03509	.04780	-.03678	.04651	6.44531	.00312	.00146	.00126	-.01598	-.02959
-2.050	.501	-.02985	.04703	-.03151	.04594	6.52581	.00308	.00096	.00197	-.01594	-.02474
-2.050	.600	-.03431	.04537	-.03591	.04411	6.61139	-.00286	.00056	.00260	-.01417	-.02951
-2.050	.698	-.03690	.04543	-.04050	.04401	6.62670	-.00581	.00016	.00218	-.01513	-.03297
-2.050	.800	-.04236	.04559	-.04396	.04405	6.61870	-.00284	.00058	.00186	-.01353	-.03410
-2.050	.900	-.04480	.04575	-.04640	.04412	6.60892	-.00582	.00067	.00072	-.01559	-.03637
-2.050	1.000	-.04489	.04456	-.04646	.04292	6.59914	-.00288	.00062	.00039	-.01214	-.03663
-2.050	1.501	-.05122	.04385	-.05275	.04199	6.55003	-.00591	-.00026	.00071	-.01365	-.04180
GRADIENT		.00644	-.00428	.00659	-.00404	.22073	-.00601	-.00365	.00072	.00232	-.00319

DATE OF NOV 72

## TABULATED SOURCE DATA - MSC/LTV MA1

PAGE 2

LTV LSWT S-061 B1WIV1G1 (BELT MOVING)

(R00001) (07 NOV 72)

## REFERENCE DATA

BREF = 7.6675 SQ.FT. XHRP = 75.7500 INCHES  
 LREF = 2.5400 FEET YMRP = .0000 INCHES  
 BREF = 3.6760 FEET ZMRP = 14.1100 INCHES  
 SCALE = .0000

## PARAMETRIC DATA

ELVN-R = .000 ELVN-L = .000  
 ELEVON = .000

RUN NO. 29/0 RN/L = .43 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA	HTE/B	CL	CD	CN	CA	Q(PSF)	CY	CBL	CYN	CAB	CLM
.000	.149	.00639	.05287	.00639	.05287	6.43804	.00028	.00311	-.00152	-.01109	.01855
.000	.199	.01696	.05217	.01696	.05217	6.37202	.00631	.00255	.00008	-.01515	.02008
.000	.249	.02161	.05259	.02161	.05259	6.32802	.00627	.00256	.00009	-.01711	.01833
.000	.299	.03619	.05269	.03619	.05269	6.31999	.00314	.00215	.00044	-.01392	.02711
.000	.349	.03600	.05248	.03600	.05248	6.34497	.00925	.00155	.00129	-.01604	.02609
.000	.399	.03199	.05337	.03199	.05337	6.39693	.00917	.00106	.00205	-.01395	.02220
.000	.448	.03637	.05148	.03637	.05148	6.47393	.00599	.00017	.00162	-.01469	.02488
.000	.501	.03353	.05084	.03353	.05084	6.55443	.00890	.00010	.00201	-.01570	.02235
.000	.600	.03085	.05041	.03085	.05041	6.61548	-.00005	-.00110	.00226	-.01323	.02036
.000	.698	.03311	.05032	.03311	.05032	6.62688	.00288	-.00115	.00267	-.01466	.02165
.000	.800	.02380	.04915	.02380	.04915	6.61688	-.00300	-.00106	.00186	-.01268	.01484
.000	.900	.02268	.04921	.02268	.04921	6.60710	-.00300	-.00060	.00112	-.01394	.01420
.000	1.000	.01918	.04927	.01918	.04927	6.59733	-.00002	.00024	.00078	-.01289	.01134
.000	1.501	.01576	.04966	.01576	.04966	6.54821	.00285	-.00166	-.00026	-.00814	.00810
GRADIENT	-.00428	-.00335	-.00428	-.00335	.21925	-.00513	-.00348	.00037	.00385	-.01149	

RUN NO. 2/0 RN/L = .43 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA	HTE/B	CL	CD	CN	CA	Q(PSF)	CY	CBL	CYN	CAB	CLM
1.970	.133	.06839	.05475	.09022	.05167	6.43530	-.00284	.00425	.00092	-.01255	.07458
1.970	.149	.06380	.05607	.08567	.05316	6.41273	.00317	.00318	.00029	-.01194	.07051
1.970	.199	.10117	.05591	.10303	.05240	6.35632	-.00606	.00390	.00131	-.01614	.07728
1.970	.249	.09793	.05874	.09889	.05534	6.31999	.00004	.00333	.00142	-.01436	.07423
1.970	.299	.10873	.05775	.11063	.05398	6.32728	-.00305	.00388	.00175	-.01530	.08014
1.970	.349	.09947	.05846	.10142	.05501	6.36261	.00302	.00231	.00189	-.01341	.07188
1.970	.399	.09370	.05774	.09562	.05449	6.42441	.00599	.00082	.00236	-.01395	.06756
1.970	.448	.10443	.05748	.10635	.05385	6.50141	.00292	.00136	.00264	-.01520	.07483
1.970	.501	.09841	.05663	.10030	.05322	6.58191	-.00011	.00046	.00224	-.01345	.06992
1.970	.600	.09905	.05636	.10093	.05292	6.61941	.00280	-.00049	.00268	-.01434	.07064
1.970	.698	.08844	.05595	.09032	.05288	6.62514	-.00014	-.00092	.00229	-.01481	.06286
1.970	.800	.08742	.05600	.08929	.05296	6.61514	-.00014	-.00092	.00229	-.01459	.06229
1.970	.900	.08760	.05481	.08944	.05176	6.60536	-.00013	-.00007	.00078	-.01335	.06217
1.970	1.000	.08297	.05598	.08485	.05309	6.59558	.00282	.00031	.00043	-.01409	.05849
1.970	1.501	.08010	.05503	.08194	.05224	6.54647	-.00018	-.00103	.00008	-.01142	.05627
GRADIENT	-.01295	-.00150	-.01299	-.00106	.21054	.00107	-.00417	-.00086	.00104	-.01644	

DATE 07 NOV 72

## TABULATED SOURCE DATA - MSC/LTV MA2

PAGE 3

LTV LSWT S-081 B1WIV1G1 (BELT MOVING)

(RDO001) (07 NOV 72)

## REFERENCE DATA

SREF = 7,6675 SQ.FT. XMRP = 75.7500 INCHES  
 LREF = 2,5400 FEET YMRP = .0000 INCHES  
 BREF = 3,6760 FEET ZMRP = 14.1100 INCHES  
 SCALE = .0000

## PARAMETRIC DATA

ELVN-R = .000 ELVN-L = .000  
 ELEVON = .000

RUN NO. 6/0 RN/L = .44 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA	HTE/B	CL	CD	CN	CA	Q(PSF)	CY	CBL	CYN	CAB	CLM
3.930	.118	.16308	.02166	.16413	.00906	6.43176	-.00015	.00427	-.00415	-.01247	.13481
3.930	.149	.18172	.05304	.18492	.04046	6.38763	-.00621	.00387	-.00036	-.01303	.13443
3.930	.199	.18902	.05387	.19226	.04079	6.34073	-.00631	.00300	.00047	-.01353	.13795
3.930	.249	.17967	.05470	.18299	.04226	6.31999	-.00328	.00202	.00098	-.01591	.12983
3.930	.299	.18143	.05472	.18475	.04216	6.33703	-.00328	.00296	.00091	-.01284	.12853
3.930	.349	.18132	.05576	.18471	.04320	6.38015	-.00331	.00153	.00101	-.01449	.12857
3.930	.399	.17564	.05491	.17899	.04275	6.45169	-.00333	.00010	.00112	-.01444	.12329
3.930	.448	.17250	.05418	.17581	.04223	6.52869	-.00031	-.00043	.00081	-.01351	.12233
3.930	.501	.17051	.05359	.17379	.04178	6.60130	-.00032	-.00043	.00080	-.01333	.11984
3.930	.600	.16849	.05317	.16974	.04164	6.62330	-.00032	-.00089	.00083	-.01310	.11747
3.930	.698	.16192	.05161	.16508	.04039	6.62341	-.00327	-.00128	.00120	-.01529	.11417
3.930	.800	.15624	.05253	.15947	.04170	6.61341	-.00324	-.00083	.00116	-.01335	.11035
3.930	.900	.15649	.05259	.15973	.04175	6.60363	-.00030	-.00050	.00007	-.01374	.11052
3.930	1.000	.15320	.05242	.15643	.04180	6.59385	.00265	-.00013	-.00029	-.01522	.10760
3.930	1.501	.14971	.05125	.15267	.04087	6.54474	-.00037	-.00196	-.00055	-.01289	.10484
GRADIENT		-.03104	.00438	-.03066	.00650	.20955	.00354	-.00425	.00032	-.00011	-.02609

RUN NO. 7/0 RN/L = .43 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA	HTE/B	CL	CD	CN	CA	Q(PSF)	CY	CBL	CYN	CAB	CLM
6.000	.100	.30475	.06345	.30971	.03125	6.43047	-.00344	.00300	.00000	-.01170	.21811
6.000	.149	.27968	.06243	.28467	.03286	6.36832	.00264	.00280	-.00065	-.01386	.19820
6.000	.199	.27647	.06365	.28161	.03441	6.32433	.00575	.00296	.00130	-.01334	.19423
6.000	.249	.27664	.06369	.28179	.03443	6.31999	.00883	.00287	.00097	-.01445	.19390
6.000	.299	.27150	.06433	.27674	.03561	6.34911	.00570	.00248	.00136	-.01426	.18930
6.000	.349	.27277	.06417	.27799	.03531	6.40340	.00867	.00197	.00183	-.01457	.18975
6.000	.399	.26128	.06255	.26638	.03490	6.48040	.00553	.00056	.00135	-.01406	.18233
6.000	.448	.25006	.06309	.26324	.03578	6.55740	.00639	-.00082	.00210	-.01389	.17996
6.000	.501	.25753	.06276	.26248	.03553	6.60541	.00537	-.00080	.00168	-.01480	.17931
6.000	.600	.25061	.06194	.25571	.03541	6.62741	.00537	-.00035	.00162	-.01576	.17363
6.000	.698	.24621	.06150	.25129	.03543	6.62158	.00247	.00018	.00189	-.01421	.17113
6.000	.800	.24198	.06110	.24704	.03546	6.61158	.00833	-.00091	.00136	-.01335	.16832
6.000	.900	.23639	.06183	.24156	.03679	6.60180	-.00047	.00003	.00002	-.01464	.16500
6.000	1.000	.23440	.06166	.23956	.03663	6.59203	.00839	-.00008	.00052	-.01324	.16304
6.000	1.501	.22928	.06015	.23431	.03585	6.54292	.00540	-.00201	-.00041	-.01371	.15960
GRADIENT		-.04929	-.00266	-.04930	.00250	.20620	.00120	-.00367	-.00055	-.00030	-.03689

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## TABULATED SOURCE DATA - MSC/LTV MA1

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LTV LSWT S-081 B1WIV1G1 (BELT MOVING)

(RD00001) (07 NOV 72)

## REFERENCE DATA

## PARAMETRIC DATA

SREF = 7.8675 SQ.FT. XMRP = 75.7500 INCHES  
 LREF = 2.5400 FEET YMRP = .0000 INCHES  
 BREF = 3.6780 FEET ZMRP = 14.1100 INCHES  
 SCALE = .0000

ELVN-R = .000 ELVN-L = .000  
 ELEVON = .000

RUN NO. 8/0 RN/L = .42 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA	HTE/B	CL	CD	CN	CA	Q(PSF)	CY	CBL	CYN	CAB	CLM
7.930	.085	.41380	.08024	.42091	.02239	6.42817	.00218	.00183	-.00136	-.01267	.28409
7.930	.099	.38998	.07827	.39705	.02373	6.40755	.00226	.00181	-.00137	-.01157	.26905
7.930	.149	.37137	.07830	.37865	.02652	6.35310	-.00071	.00192	-.00104	-.01315	.25800
7.930	.199	.36838	.07823	.37565	.02667	6.31999	-.00378	.00250	-.00078	-.01172	.25471
7.930	.249	.36545	.07779	.37268	.02663	6.32930	-.00071	.00155	-.00021	-.01408	.25296
7.930	.299	.34980	.07677	.35715	.02777	6.36625	.00342	.00106	.00071	-.01344	.24185
7.930	.349	.34009	.07776	.34757	.03010	6.43005	.00533	-.00034	.00092	-.01237	.23512
7.930	.399	.33951	.07732	.34693	.02975	6.50706	.00229	.00068	.00109	-.01521	.23388
7.930	.448	.33436	.07627	.34169	.02942	6.58406	.00223	-.00023	.00122	-.01412	.23004
7.930	.501	.33314	.07598	.34043	.02930	6.60921	.00517	-.00033	.00089	-.01374	.22962
7.930	.600	.32845	.07651	.33586	.03047	6.62945	.00221	-.00033	.00048	-.01550	.22625
7.930	.698	.32430	.07597	.33168	.03051	6.61989	.00224	-.00023	.00121	-.01477	.22349
7.930	.800	.31673	.07496	.32404	.03055	6.60989	-.00069	-.00070	.00087	-.01394	.21875
7.930	.900	.31372	.07458	.32101	.03060	6.60011	-.00365	-.00035	-.00033	-.01501	.21664
7.930	1.000	.31186	.07436	.31914	.03063	6.59033	-.00069	-.00035	.00007	-.01543	.21519
7.930	1.501	.30718	.07395	.31445	.03087	6.54122	.00223	-.00149	-.00084	-.01466	.21146
GRADIENT	-.06636	-.00409	-.06628	.00510	.19950	-.00088	-.00257	.00040	-.00216	-.04619	

RUN NO. 9/0 RN/L = .44 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA	HTE/B	CL	CD	CN	CA	Q(PSF)	CY	CBL	CYN	CAB	CLM
10.100	.068	.55013	.11705	.56213	.01878	6.42524	.00167	-.00006	-.00184	-.01043	.36985
10.100	.099	.51465	.11213	.52634	.02015	6.38013	.00181	.00002	-.00110	-.01161	.34775
10.100	.149	.48354	.10799	.49498	.02153	6.33607	.00087	-.00104	-.00083	-.01208	.33039
10.100	.199	.45549	.10565	.46696	.02415	6.31999	.00028	.00189	-.00060	-.01375	.31225
10.100	.249	.49288	.10512	.46430	.02409	6.33994	.00208	.00105	-.00052	-.01339	.31103
10.100	.299	.44705	.10524	.45857	.02523	6.38539	.00510	.00013	.00007	-.01299	.30722
10.100	.349	.43242	.10235	.44367	.02494	6.45984	.00506	-.00008	.00165	-.01372	.29643
10.100	.399	.42265	.10031	.43369	.02465	6.93684	.00203	.00035	.00113	-.01371	.28936
10.100	.448	.42199	.09995	.43298	.02441	6.60197	.00490	-.00124	.00033	-.01336	.28940
10.100	.501	.40020	.09856	.41129	.02687	6.61347	.00200	-.00158	.00073	-.01444	.27607
10.100	.600	.41092	.09916	.42194	.02556	6.62755	.00489	-.00156	.00114	-.01391	.28143
10.100	.698	.40003	.09725	.41089	.02561	6.61800	-.00093	-.00090	.00169	-.01415	.27433
10.100	.800	.39930	.09842	.41037	.02689	6.60800	.00202	-.00069	.00057	-.01488	.27429
10.100	.900	.39070	.09692	.40164	.02692	6.59822	.00498	-.00114	.00107	-.01343	.26851
10.100	1.000	.39127	.09706	.40223	.02695	6.58844	.00502	-.00056	.00171	-.01275	.26891
10.100	1.501	.39799	.09718	.40887	.02589	6.53933	.00201	-.00175	.00001	-.01366	.27408
GRADIENT	-.09183	-.01190	-.09249	.00439	.19766	-.00137	-.00149	.00146	-.00133	-.05964	

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## TABULATED SOURCE DATA - MSC/LTV MAI

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LTV L8WT S-001 BIWIVIGI (BELT MOVING)

(R00001) (OF NOV 72 )

## REFERENCE DATA

BREF = 7,8875 SQ.FT. XMRP = 75,7500 INCHES  
 LREF = 2,5400 FEET YMRP = .0000 INCHES  
 BREF = 3,6780 FEET ZMRP = 14,1100 INCHES  
 SCALE = .0000

## PARAMETRIC DATA

ELVN-R = .000 ELVN-L = .000  
 ELEVON = .000

RUN NO. 10/0 RN/L = .44 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA	HTE/B	CL	CD	CN	CA	Q(PSF)	CY	CBL	CYN	CAB	CLM
11.900	.053	.65534	.14957	.67209	.01124	6.42359	.00123	-.00142	-.00154	-.01058	.43358
11.900	.099	.61155	.14295	.62789	.01380	6.36605	.00456	-.00066	-.00209	-.01043	.41233
11.900	.149	.58324	.13971	.59951	.01647	6.32205	.00164	-.00056	-.00178	-.01190	.39649
11.900	.199	.55970	.13468	.57544	.01640	6.32120	.00792	-.00052	-.00092	-.01367	.38365
11.900	.249	.53050	.13534	.56658	.01694	6.35167	.00484	-.00039	-.00059	-.01343	.37787
11.900	.299	.53402	.13166	.54970	.01876	6.40738	.00484	-.00070	.00025	-.01375	.36776
11.900	.349	.52392	.13063	.53960	.01981	6.48438	.00480	-.00023	.00015	-.01355	.36112
11.900	.399	.51768	.12908	.53317	.01958	6.56138	.00475	.00021	.00005	-.01399	.35553
11.900	.448	.50940	.12851	.52495	.02072	6.60547	.00468	-.00113	.00035	-.01376	.35028
11.900	.501	.50171	.12684	.51708	.02068	6.61697	.00760	-.00215	.00023	-.01199	.34528
11.900	.600	.50211	.12690	.51749	.02066	6.62600	.00467	-.00113	.00035	-.01520	.34501
11.900	.698	.49486	.12542	.51008	.02070	6.61644	-.00119	-.00179	.00117	-.01460	.34043
11.900	.800	.48646	.12365	.50150	.02070	6.60644	.00178	-.00104	.00067	-.01528	.33431
11.900	.900	.48378	.12310	.49877	.02072	6.59666	.00180	-.00074	-.00015	-.01320	.33282
11.900	1.000	.48222	.12280	.49717	.02074	6.58689	.00184	-.00015	.00047	-.01451	.33198
11.900	1.501	.47668	.12179	.49155	.02090	6.53777	.00183	-.00197	.00087	-.01392	.32913
GRADIENT	-.10507	-.01692	-.10630	.00510	.19364	-.00248	-.00059	.00178	-.00208	-.06568	

RUN NO. 11/0 RN/L = .44 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA	HTE/B	CL	CD	CN	CA	Q(PSF)	CY	CBL	CYN	CAB	CLM
13.970	.037	.78160	.19822	.80633	.00370	6.42038	.01295	-.00136	-.00056	-.00836	.51339
13.970	.049	.75547	.19433	.78004	.00624	6.40266	.00701	-.00193	-.00129	-.00926	.50161
13.970	.099	.69970	.18708	.72417	.01266	6.35006	.01041	-.00331	-.00053	-.01146	.47617
13.970	.149	.66755	.18040	.69135	.01394	6.31999	.01065	-.00270	.00009	-.01319	.45929
13.970	.199	.64920	.17848	.67308	.01650	6.33119	.00767	-.00071	-.00006	-.01345	.44783
13.970	.249	.62898	.17332	.65222	.01637	6.36966	.01376	-.00220	.00040	-.01379	.43553
13.970	.299	.61537	.17107	.63847	.01747	6.43536	.01065	-.00198	.00059	-.01380	.42813
13.970	.349	.60977	.17209	.63328	.01982	6.51236	.00458	-.00055	.00024	-.01446	.42527
13.970	.399	.59693	.16866	.61999	.01959	6.58936	.00746	-.00114	.00005	-.01518	.41565
13.970	.448	.59063	.16702	.61349	.01952	6.60947	.01038	-.00172	-.00014	-.01499	.41175
13.970	.501	.59264	.16878	.61586	.02074	6.62097	.01038	-.00082	-.00037	-.01460	.41277
13.970	.600	.58894	.16788	.61205	.02076	6.62422	.00738	-.00246	.00039	-.01530	.41015
13.970	.698	.57616	.16472	.59888	.02078	6.61466	.00449	-.00190	.00059	-.01323	.40057
13.970	.800	.57101	.16478	.59390	.02208	6.60466	.00449	-.00235	.00071	-.01497	.39674
13.970	.900	.57340	.16409	.59606	.02084	6.59469	.00157	-.00196	.00018	-.01562	.39956
13.970	1.000	.56521	.16206	.58761	.02084	6.58511	.00458	-.00148	.00048	-.01488	.39440
13.970	1.501	.56251	.16156	.58487	.02101	6.53600	.00161	-.00200	.00019	-.01317	.39154
GRADIENT	-.12634	-.02220	-.12991	.00943	.18852	-.00715	-.00004	.00067	-.00343	-.07626	

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## TABULATED SOURCE DATA - MSC/LTV MAS

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LTV LSWT S-081 B1W1V1G1 (BELT MOVING)

(RD0001) (07 NOV 72)

## REFERENCE DATA

BREF = 7.8875 SQ.FT. XMRP = 75.7500 INCHES  
 LREF = 2.5400 FEET YMRP = .0000 INCHES  
 BREF = 3.8780 FEET ZMRP = 14.1100 INCHES  
 SCALE = .0000

## PARAMETRIC DATA

ELVN-R = .000 ELVN-L = .000  
 ELEVON = .000

RUN NO. 12/0 RN/L = .44 GRADIENT INTERVAL = -9.00/ 5.00

ALPHA	HTE/B	CL	CD	CN	CA	Q(PSF)	CY	CBL	CYN	CAB	CLM
16.000	.020	.94463	.25483	.97830	-.01534	6.41953	.00322	-.00060	-.00045	-.00570	.61059
16.000	.049	.87733	.24467	.91079	-.00658	6.37853	.00977	-.00071	-.00036	-.00776	.58232
16.000	.099	.80056	.23056	.83310	.00100	6.33453	.01325	-.00365	.00011	-.01166	.54776
16.000	.149	.76024	.22435	.79263	.00614	6.31999	.01353	-.00163	.00030	-.01343	.52613
16.000	.199	.73085	.21719	.76240	.00736	6.34090	.01053	-.00216	.00001	-.01484	.51108
16.000	.249	.71927	.21515	.75071	.00859	6.38713	.01054	.00033	.00007	-.01554	.50185
16.000	.299	.69541	.21086	.72659	.01105	6.46254	.01042	-.00147	.00061	-.01612	.48809
16.000	.349	.68052	.20643	.71105	.01089	6.53954	.01332	-.00116	.00016	-.01545	.47878
16.000	.399	.67704	.20663	.70776	.01204	6.60235	.01321	-.00026	-.00009	-.01545	.47642
16.000	.448	.66993	.20589	.70073	.01329	6.61335	.00728	-.00082	-.00078	-.01590	.47163
16.000	.501	.67103	.20618	.70186	.01327	6.62485	.01020	-.00119	-.00024	-.01745	.47258
16.000	.600	.66907	.20563	.69983	.01328	6.62249	.00725	-.00169	-.00051	-.01604	.47188
16.000	.698	.65875	.20270	.68911	.01330	6.61294	.00431	-.00221	-.00078	-.01679	.46372
16.000	.800	.65297	.20107	.68310	.01333	6.60294	.00430	-.00290	.00018	-.01727	.45911
16.000	.900	.65288	.20104	.68301	.01333	6.59316	.00436	-.00202	-.00007	-.01722	.46002
16.000	1.000	.64682	.20060	.67706	.01458	6.58338	.00446	-.00049	.00023	-.01433	.45736
16.000	1.501	.64637	.19926	.67625	.01342	6.53427	.01041	-.00193	.00074	-.01554	.45636
GRADIENT	-.15477	-.03033	-.15713	.01350	.18610	-.00331	-.00042	.00031	-.00451	-.08699	

RUN NO. 13/0 RN/L = .43 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA	HTE/B	CL	CD	CN	CA	Q(PSF)	CY	CBL	CYN	CAB	CLM
16.000	.022	1.01880	.30939	1.06455	-.02050	6.39193	.01214	-.00169	-.00035	-.00428	.66675
16.000	.049	.96499	.30123	1.01085	-.01165	6.36340	.01557	-.00253	.00035	-.00783	.64454
16.000	.099	.87642	.28453	.92145	-.00017	6.31999	.00999	-.00316	.00126	-.01210	.60444
16.000	.149	.82979	.27474	.87407	.00493	6.32286	.01331	-.00288	.00078	-.01423	.58180
16.000	.199	.81182	.27297	.85644	.00880	6.35485	.01334	-.00217	.00136	-.01565	.57197
16.000	.249	.79398	.26841	.85806	.00997	6.41202	.01634	-.00118	.00146	-.01673	.56139
16.000	.299	.76706	.26219	.81054	.01237	6.48902	.01322	-.00169	.00117	-.01680	.54686
16.000	.349	.76061	.25962	.80330	.01096	6.56602	.01306	-.00124	.00101	-.01674	.54067
16.000	.399	.74600	.25775	.78914	.01466	6.60614	.01594	-.00161	.00086	-.01677	.53226
16.000	.448	.74399	.25574	.78660	.01336	6.61714	.01595	-.00051	.00042	-.01766	.52963
16.000	.501	.73824	.25387	.78056	.01336	6.62864	.01295	-.00146	.00031	-.01788	.52518
16.000	.600	.73205	.25318	.77446	.01462	6.62081	.01008	-.00044	.00032	-.01800	.52114
16.000	.698	.73274	.25476	.77560	.01590	6.61126	.00719	-.00071	.00076	-.01806	.52295
16.000	.800	.72500	.25226	.76747	.01592	6.60126	.00717	-.00116	.00091	-.01868	.51760
16.000	.900	.71504	.24900	.75699	.01590	6.59148	.00435	.00094	.00133	-.01948	.51216
16.000	1.000	.72389	.25191	.76631	.01593	6.58170	.01026	.00066	.00228	-.01969	.51803
16.000	1.501	.71856	.24896	.76033	.01477	6.53259	.01030	-.00089	.00204	-.01685	.51458
GRADIENT	-.16052	-.03421	-.16325	.01705	.18634	-.00485	.00196	.00094	-.00658	-.08815	

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## TABULATED SOURCE DATA - MSC/LTV MAI

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LTV LWT S-081 B1W1V1G1 (BELT MOVING)

(R00001) (07 NOV 72)

## REFERENCE DATA

## PARAMETRIC DATA

BREF = 7.6675 SQ.FT. XMRP = 75.7500 INCHES  
 LREF = 2.5400 FEET YMRP = .0000 INCHES  
 BREF = 3.6780 FEET ZMRP = 14.1100 INCHES  
 SCALE = .0000

ELVN-R = .000 ELVN-L = .000  
 ELEVON = .000

RUN NO. 14/0 RN/L = .43 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA	HTE/B	CL	CD	CN	CA	Q(PSF)	CY	CBL	CYN	CAB	CLM
20.070	.068	1.03865	.35998	1.09912	-.01823	6.33194	.01248	-.00182	.00053	-.00993	.70897
20.070	.099	.99981	.35263	1.06011	-.01181	6.31999	.00355	.00047	.00076	-.01378	.69018
20.070	.149	.93556	.34016	.99546	-.00148	6.33252	.01000	-.00005	.00103	-.01859	.65932
20.070	.199	.90379	.33265	.96306	.00236	6.37205	.00701	-.00015	.00060	-.01994	.64355
20.070	.249	.87729	.32426	.93529	.00358	6.43908	.00701	-.00060	.00076	-.02094	.62826
20.070	.299	.84246	.31550	.89958	.00729	6.51608	.01003	-.00033	.00029	-.02062	.60738
20.070	.349	.82682	.31105	.88334	.00846	6.59308	.01285	-.00178	.00048	-.02157	.59809
20.070	.399	.82861	.31297	.88570	.00967	6.61000	.00996	.00114	-.00105	-.02295	.59939
20.070	.448	.82761	.31126	.88417	.00840	6.62100	.01287	.00122	-.00065	-.02023	.59730
20.070	.501	.82521	.31171	.88206	.00965	6.62887	.00699	.00070	.00024	-.02380	.59791
20.070	.600	.83115	.31258	.88795	.00843	6.61909	.00404	.00086	.00054	-.02417	.60077
20.070	.698	.80190	.29785	.85542	.00463	6.60954	.00116	.00072	.00015	-.02204	.57871
20.070	.800	.79979	.29711	.85318	.00466	6.59954	.00111	-.00074	.00150	-.02157	.57671
20.070	.900	.79731	.29751	.85099	.00589	6.58976	-.00170	.00183	.00167	-.02100	.57666
20.070	1.000	.79629	.29712	.84989	.00587	6.57998	.00132	.00364	.00143	-.02335	.57573
20.070	1.501	.81143	.30343	.86697	.00848	6.53087	.00425	.00204	.00249	-.02633	.58833
GRADIENT	-1.13423	-.03794	-.13910	.01042	.17279	-.00725	.00243	.00132	-.00711	-.07707	

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## TABULATED SOURCE DATA - HSC/LTV MA1

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LTV LSWT S-001 B1W1V1G1 (BELT STATIONARY)

(RD0002) (07 NOV 72)

## REFERENCE DATA

BREF = 7.6675 SQ.FT. XMRP = 75.7500 INCHES  
 LREF = 2.9400 FEET YMRP = .0000 INCHES  
 BREF = 3.6760 FEET ZMRP = 14.1100 INCHES  
 SCALE = .0000

## PARAMETRIC DATA

ELVN-R = .000 ELVN-L = .000  
 ELEVON = .000

RUN NO. 26/0 RN/L = .43 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA	HTE/B	CL	CD	CN	CA	Q(PSF)	CY	CBL	CYN	CAB	CLM
-4.000	.199	-.13842	.05892	-.14219	.04912	6.41856	.00650	.00280	-.00047	-.01627	-.09382
-4.000	.249	-.15273	.06034	-.13662	.05093	6.35993	.00647	.00356	-.00120	-.01546	-.09344
-4.000	.299	-.11523	.05947	-.11910	.05129	6.31999	.00337	.00147	-.00021	-.01675	-.08240
-4.000	.349	-.11285	.05929	-.11671	.05127	6.32503	.00333	.00147	-.00020	-.01589	-.08282
-4.000	.399	-.10137	.05690	-.10509	.04969	6.35856	.00026	.00145	.00090	-.01598	-.07364
-4.000	.448	-.10650	.05812	-.11029	.05055	6.41810	.00327	.00035	.00201	-.01836	-.07935
-4.000	.501	-.10045	.05708	-.10418	.04994	6.49860	.00320	-.00011	.00196	-.01602	-.07522
-4.000	.600	-.09898	.05491	-.10257	.04787	6.60751	.00018	-.00008	.00226	-.01576	-.07553
-4.000	.698	-.10334	.05507	-.10693	.04773	6.62901	-.00275	-.00051	.00256	-.01648	-.07682
-4.000	.800	-.10464	.05522	-.10824	.04779	6.62043	.00017	-.00055	.00223	-.01531	-.08002
-4.000	.900	-.10140	.05381	-.10490	.04660	6.61065	-.00277	-.00001	.00186	-.01534	-.07793
-4.000	1.000	-.10623	.05422	-.10976	.04668	6.60087	-.00574	.00011	.00072	-.01282	-.08159
-4.000	1.501	-.11192	.05371	-.11339	.04578	6.55176	-.00287	-.00086	.00034	-.01337	-.08731
GRADIENT	.01393	-.00552	.01428	-.00453	.23436	-.00844	-.00274	.00108	.00320	.00266	

RUN NO. 27/0 RN/L = .43 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA	HTE/B	CL	CD	CN	CA	Q(PSF)	CY	CBL	CYN	CAB	CLM
-2.050	.164	-.06633	.05522	-.06826	.05281	6.44377	.00339	.00345	-.00097	-.01651	-.03816
-2.050	.199	-.05622	.05662	-.05821	.05457	6.39350	.00335	.00348	-.00097	-.01635	-.03486
-2.050	.249	-.04959	.05685	-.05159	.05504	6.34438	.00025	.00305	.00012	-.01606	-.03333
-2.050	.299	-.04266	.05686	-.04467	.05530	6.31999	.00013	.00213	-.00066	-.01733	-.03163
-2.050	.349	-.03525	.05646	-.03725	.05516	6.33475	.00631	.00196	.00094	-.01590	-.02648
-2.050	.399	-.03749	.05621	-.03948	.05484	6.37605	.00317	.00057	.00125	-.01607	-.02860
-2.050	.448	-.03717	.05562	-.03914	.05425	6.44531	.00615	.00048	.00165	-.01590	-.02966
-2.050	.501	-.03552	.05489	-.03746	.05358	6.52581	.00609	.00045	.00238	-.01566	-.02817
-2.050	.600	-.03859	.05433	-.04051	.05291	6.61139	.00597	-.00095	.00305	-.01657	-.03068
-2.050	.698	-.03383	.05276	-.03570	.05152	6.62870	.00301	-.00087	.00264	-.01466	-.02684
-2.050	.800	-.04454	.05325	-.04642	.05162	6.61870	-.00289	-.00076	.00184	-.01425	-.03640
-2.050	.900	-.04455	.05331	-.04643	.05168	6.60892	-.00285	.00015	.00186	-.01398	-.03556
-2.050	1.000	-.04464	.05211	-.04647	.05048	6.59914	.00302	.00006	.00120	-.01426	-.03581
-2.050	1.501	-.05453	.05160	-.05634	.04961	6.55003	.00000	-.00076	-.00070	-.01519	-.04432
GRADIENT	.00094	-.00444	.00110	-.00441	.22021	-.00327	-.00328	.00073	.00185	-.00717	

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## TABULATED SOURCE DATA - MSC/LTV MA1

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LTV LWT S-081 B1W1V1G1 (BELT STATIONARY)

(R00002) (07 NOV 72)

## REFERENCE DATA

## PARAMETRIC DATA

BREF = 7.8675 SQ.FT. XMRP = 75.7500 INCHES  
 LREF = 2.9400 FEET YMRP = .0000 INCHES  
 BREF = 3.6760 FEET ZMRP = 14.1100 INCHES  
 SCALE = .0000

ELVN-R = .000 ELVN-L = .000  
 ELEVON = .000

RUN NO. 26/0 RN/L = .43 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA	HTE/B	CL	CD	CN	CA	Q (PSF)	CY	CBL	CYN	CAB	CLM
.000	.149	.00620	.05678	.00620	.05678	6.43804	.00627	.00207	-.00143	-.01537	.01600
.000	.199	.02050	.05609	.02050	.05609	6.37202	.01239	.00245	-.00060	-.01443	.02142
.000	.249	.03519	.05520	.03519	.05520	6.32802	.01242	.00200	.00017	-.01608	.03010
.000	.299	.03006	.05664	.03006	.05664	6.31999	.00929	.00109	.00053	-.01472	.02293
.000	.349	.03480	.05511	.03480	.05511	6.34497	.00925	.00108	.00130	-.01602	.02584
.000	.399	.03562	.05598	.03562	.05598	6.39693	.01220	.00055	.00248	-.01603	.02515
.000	.448	.03037	.05532	.03037	.05532	6.47393	.01204	.00006	.00246	-.01380	.02078
.000	.501	.03237	.05338	.03237	.05338	6.55443	.01187	-.00039	.00243	-.01508	.02211
.000	.600	.03550	.05416	.03550	.05416	6.61548	.00881	-.00032	.00274	-.01317	.02364
.000	.698	.02729	.05407	.02729	.05407	6.62688	.00879	-.00079	.00274	-.01348	.01809
.000	.800	.02266	.05290	.02266	.05290	6.61688	.00291	-.00115	.00267	-.01316	.01482
.000	.900	.02148	.05298	.02148	.05298	6.60710	.00289	-.00070	.00120	-.01500	.01329
.000	1.000	.02150	.05180	.02150	.05180	6.59733	.00584	-.00076	.00087	-.01358	.01266
.000	1.501	.01568	.05216	.01568	.05216	6.54821	.00298	.00204	-.00030	-.01470	.00759
GRADIENT		-.00639	-.00387	-.00639	-.00387	.21925	-.00704	-.00117	.00047	.00110	-.01292

RUN NO. 24/0 RN/L = .43 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA	HTE/B	CL	CD	CN	CA	Q (PSF)	CY	CBL	CYN	CAB	CLM
1.970	.133	.10055	.05001	.10221	.04652	6.43530	.00008	.00320	-.00012	-.01321	.06145
1.970	.149	.10321	.05157	.10492	.04799	6.41275	.00007	.00322	-.00012	-.01368	.06286
1.970	.199	.10388	.05205	.10560	.04845	6.35632	.00004	.00372	-.00014	-.01520	.07988
1.970	.249	.10910	.05387	.11089	.05009	6.31999	-.00311	.00285	.00024	-.01357	.08099
1.970	.299	.11015	.05256	.11190	.04875	6.32728	-.00011	.00134	-.00002	-.01492	.07999
1.970	.349	.11188	.05367	.11366	.04980	6.36261	.00291	.00034	.00044	-.01529	.08068
1.970	.399	.11074	.05314	.11250	.04930	6.42441	.00597	.00173	.00155	-.01188	.07898
1.970	.448	.10822	.05249	.10996	.04874	6.50141	.00585	.00031	.00160	-.01558	.07693
1.970	.501	.10693	.05186	.10865	.04815	6.58191	.00575	-.00060	.00162	-.01509	.07644
1.970	.600	.10510	.05153	.10681	.04789	6.61941	.00279	-.00008	.00192	-.01305	.07445
1.970	.698	.09683	.05121	.09854	.04785	6.62514	.00278	-.00054	.00194	-.01333	.06843
1.970	.800	.09232	.05112	.09402	.04791	6.61514	.00280	-.00055	.00194	-.01279	.06544
1.970	.900	.09130	.05116	.09300	.04799	6.60536	-.00311	-.00050	.00039	-.01416	.06487
1.970	1.000	.08555	.05103	.08726	.04806	6.59558	-.00017	-.00057	.00008	-.01402	.06032
1.970	1.501	.08386	.05007	.08553	.04716	6.54647	.00274	-.00161	-.00096	-.01279	.05834
GRADIENT		-.02014	-.00160	-.02018	-.00090	.21054	.00063	-.00380	-.00017	.00085	-.02098

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## TABULATED SOURCE DATA - MSC/LTV MA1

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LTV L8WT S-061 BIWIVIGI (BELT STATIONARY)

(R00002) (07 NOV 72)

## REFERENCE DATA

BREF = 7.8675 SQ.FT. XMRP = 75.7500 INCHES  
 LREF = 2.5400 FEET YMRP = .0000 INCHES  
 BREF = 3.6760 FEET ZMRP = 14.1100 INCHES  
 SCALE = .0000

## PARAMETRIC DATA

ELVN-R = .000 ELVN-L = .000  
 ELEVON = .000

RUN NO. 25/ 0 RN/L = .43 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA	HTE/B	CL	CD	CN	CA	Q(PSF)	CY	CBL	CYN	CAB	CLM
.930	.117	.20096	.05407	.20420	.04018	6.43274	-.00617	.00346	.00041	-.01105	.15009
.930	.149	.19479	.05656	.19821	.04308	6.38763	-.00319	.00340	.00009	-.01385	.14378
.930	.199	.18744	.05771	.19096	.04473	6.34073	-.00628	.00397	.00040	-.01465	.13651
.930	.249	.19293	.05824	.19646	.04488	6.31999	-.00633	.00351	.00043	-.01374	.14019
.930	.299	.18987	.05794	.19340	.04479	6.33703	.00280	.00097	.00114	-.01185	.13614
.930	.349	.19208	.05911	.19568	.04581	6.38015	-.00028	.00058	.00151	-.01396	.13749
.930	.399	.18512	.05940	.18875	.04658	6.45169	.00577	.00047	.00158	-.01558	.13302
.930	.448	.18649	.05769	.19000	.04478	6.52869	.00269	.00007	.00193	-.01329	.13279
.930	.501	.18317	.05823	.18673	.04554	6.60130	.00266	.00048	.00114	-.01480	.13043
.930	.600	.17671	.05766	.18025	.04541	6.62330	-.00619	-.00029	.00071	-.01383	.12580
.930	.698	.17084	.05726	.17437	.04542	6.62341	-.00618	-.00025	.00145	-.01460	.12116
.930	.800	.16652	.05702	.17004	.04547	6.61341	-.00618	-.00031	.00071	-.01485	.11915
.930	.900	.16321	.05683	.18673	.04554	6.60363	-.00619	-.00008	-.00005	-.01258	.11600
.930	1.000	.15891	.05534	.16233	.04432	6.59385	.00266	-.00011	-.00029	-.01414	.11268
.930	1.501	.15302	.05529	.15645	.04467	6.54474	-.00627	-.00050	-.00150	-.01379	.10881
GRADIENT	-.03664	-.00132	-.03664	.00119	.20928	-.00182	-.00315	-.00133	-.00055	-.02993	

RUN NO. 19/ 0 RN/L = .43 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA	HTE/B	CL	CD	CN	CA	Q(PSF)	CY	CBL	CYN	CAB	CLM
.000	.102	.29729	.06528	.30249	.03385	6.42886	.00258	.00234	-.00060	-.01176	.21178
.000	.149	.29012	.06747	.29558	.03678	6.36832	.00264	.00331	-.00071	-.01183	.20841
.000	.199	.29084	.06782	.29634	.03705	6.32433	.00261	.00238	-.00060	-.01443	.20576
.000	.249	.27373	.06737	.27927	.03639	6.31999	.00572	.00282	-.00022	-.01383	.19177
.000	.299	.27246	.06707	.27798	.03823	6.34911	.01179	.00135	.00080	-.01346	.19044
.000	.349	.26868	.06896	.27441	.04051	6.40340	.00867	.00145	.00112	-.01408	.18851
.000	.399	.26539	.06816	.27106	.04005	6.48040	.00851	.00050	.00122	-.01334	.18497
.000	.448	.25868	.06824	.26439	.04084	6.55740	.00549	.00105	.00148	-.01255	.18145
.000	.501	.25809	.06661	.26364	.03927	6.60541	.01135	.00101	.00229	-.01340	.18059
.000	.600	.25487	.06617	.26039	.03917	6.62741	.00539	.00012	.00157	-.01327	.17778
.000	.698	.24562	.06526	.25130	.03922	6.62158	-.00051	-.00077	.00086	-.01351	.17176
.000	.800	.24469	.06648	.25050	.04052	6.61158	.00541	-.00034	.00163	-.01421	.17113
.000	.900	.23602	.06559	.24159	.04056	6.60180	-.00046	.00005	.00002	-.01458	.16607
.000	1.000	.23516	.06555	.24072	.04062	6.59203	-.00043	.00096	-.00008	-.01297	.16476
.000	1.501	.22676	.06521	.23432	.04094	6.54292	-.00051	-.00141	-.00055	-.01076	.16088
GRADIENT	-.05146	-.00187	-.05140	.00352	.20667	-.00541	-.00293	.00002	.00042	-.03740	

DATE OF NOV 72

## TABULATED SOURCE DATA - MSC/LTV MAI

PAGE 11

LTV LSWT S-001 BIWIVIGI (BELT STATIONARY)

(R00002) (07 NOV 72)

## REFERENCE DATA

BREF = 7.6875 SQ.FT. XMRP = 75.7500 INCHES  
 LREF = 2.6400 FEET YMRP = .0000 INCHES  
 BREF = 3.6780 FEET ZMRP = 14.1100 INCHES  
 SCALE = .0000

## PARAMETRIC DATA

ELVN-R = .000 ELVN-L = .000  
 ELEVON = .000

RUN NO. 20/ 0 RN/L = .43 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA	HTE/B	CL	CD	CN	CA	Q(PSF)	CY	CBL	CYN	CAB	CLM
7.930	.066	.42235	.08140	.42954	.02237	6.42668	.00826	.00210	-.00210	-.01052	.29167
7.930	.099	.39202	.08118	.39947	.02633	6.40755	.00225	.00136	-.00130	-.01264	.27131
7.930	.149	.39655	.08201	.40407	.02653	6.35310	.00538	.00315	-.00192	-.01249	.27385
7.930	.199	.37653	.08202	.38424	.02929	6.31999	.00237	.00242	-.00069	-.01290	.26140
7.930	.249	.36752	.08071	.37514	.02925	6.32930	.00851	.00135	-.00045	-.01402	.25480
7.930	.299	.36153	.08105	.36926	.03040	6.36625	.00844	.00051	.00045	-.01425	.25009
7.930	.349	.35062	.08053	.35838	.03140	6.43005	.00835	-.00032	.00134	-.01384	.24283
7.930	.399	.34645	.07958	.35412	.03103	6.50706	.00825	.00003	.00051	-.01474	.23950
7.930	.448	.34568	.07913	.35349	.03067	6.58406	.00816	.00014	.00124	-.01513	.23914
7.930	.501	.34205	.07977	.34978	.03183	6.60921	.00221	-.00030	.00048	-.01503	.23646
7.930	.600	.33389	.07979	.34171	.03297	6.62945	.00514	-.00041	.00016	-.01490	.23086
7.930	.698	.33317	.07976	.34099	.03304	6.61989	-.00071	-.00021	.00080	-.01441	.23003
7.930	.800	.32214	.07826	.32985	.03307	6.60989	-.00362	.00022	.00032	-.01608	.22291
7.930	.900	.31804	.07772	.32573	.03311	6.60011	-.00070	-.00043	-.00065	-.01425	.22060
7.930	1.000	.31718	.07892	.32504	.03441	6.59033	-.00066	.00012	.00000	-.01633	.22047
7.930	1.501	.31036	.07696	.31801	.03342	6.54122	-.00072	-.00137	-.00052	-.01430	.21478
GRADIENT		-.07178	-.00350	-.07157	.00643	.19979	-.00734	-.00237	.00068	-.00225	-.04937

RUN NO. 21/ 0 RN/L = .43 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA	HTE/B	CL	CD	CN	CA	Q(PSF)	CY	CBL	CYN	CAB	CLM
10.100	.069	.35318	.10964	.36384	.01095	6.42363	.01080	-.00030	-.00208	-.01134	.37440
10.100	.099	.31803	.10870	.32906	.01619	6.38013	.01099	-.00033	-.00209	-.01102	.35265
10.100	.149	.48044	.10472	.49136	.01886	6.33607	.00511	.00188	-.00103	-.01256	.32833
10.100	.199	.49142	.10674	.50252	.01892	6.31999	.00812	-.00023	-.00178	-.01381	.33752
10.100	.249	.46681	.10359	.47775	.02014	6.33994	.00515	.00187	-.00103	-.01324	.32030
10.100	.299	.46117	.10245	.47199	.02001	6.36539	.00812	.00000	-.00025	-.01456	.31712
10.100	.349	.45469	.10107	.46536	.01978	6.45984	.00803	-.00032	.00058	-.01460	.31279
10.100	.399	.44323	.10009	.45391	.02082	6.53684	.00792	-.00045	-.00015	-.01472	.30417
10.100	.448	.44112	.09951	.45174	.02062	6.60197	.00491	.00011	.00007	-.01394	.30249
10.100	.501	.43100	.09894	.44167	.02184	6.61347	.00490	-.00046	-.00056	-.01413	.29844
10.100	.600	.43004	.09873	.44069	.02180	6.62755	.00195	-.00035	-.00024	-.01490	.29356
10.100	.698	.42142	.09724	.43194	.02184	6.61800	-.00098	-.00070	.00015	-.01316	.28871
10.100	.800	.41749	.09656	.42796	.02187	6.60800	-.00096	-.00071	.00015	-.01452	.28650
10.100	.900	.41468	.09609	.42511	.02189	6.59822	-.00095	-.00071	.00015	-.01457	.28494
10.100	1.000	.40935	.09644	.41991	.02317	6.58844	-.00387	-.00015	.00038	-.01645	.28225
10.100	1.501	.39866	.09542	.40887	.02207	6.53933	.00202	-.00131	-.00006	-.01235	.27345
GRADIENT		-.09114	-.01101	-.09165	.00514	.19802	-.00900	-.00122	.00144	-.00123	-.06064

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## TABULATED SOURCE DATA - MSC/LTV MAI

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LTV LWT S-081 BIWIVIGI (BELT STATIONARY)

(RD0002) (07 NOV 72)

## REFERENCE DATA

BREF = 7.6675 SQ.FT. XMRP = 75.7500 INCHES  
 LREF = 2.5400 FEET YMRP = .0000 INCHES  
 BREF = 3.6780 FEET ZMRP = 14.1100 INCHES  
 SCALE = .0000

## PARAMETRIC DATA

ELVN-R = .000 ELVN-L = .000  
 ELEVON = .000

RUN NO. 25/0 RN/L = .43 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA	HTE/B	CL	CD	CN	CA	Q(PSF)	CY	CBL	CYN	CAB	CLM
11.900	.054	.64266	.14286	.65831	.00729	6.42198	.01037	-.00351	-.00136	-.00937	.42949
11.900	.099	.61240	.13913	.62793	.00989	6.36605	.00758	-.00205	-.00135	-.01124	.41215
11.900	.149	.58301	.13560	.59844	.01249	6.32205	.01703	-.00199	-.00008	-.01293	.39658
11.900	.199	.55908	.13185	.57425	.01376	6.32120	.01406	-.00110	-.00071	-.01280	.38254
11.900	.249	.55409	.13074	.56914	.01370	6.35167	.01092	-.00190	-.00018	-.01309	.38025
11.900	.299	.53348	.12890	.54860	.01614	6.40738	.01394	-.00170	-.00098	-.01385	.36759
11.900	.349	.52589	.12710	.54080	.01595	6.48438	.01080	-.00035	.00025	-.01318	.36117
11.900	.399	.51714	.12637	.53209	.01704	6.56138	.01066	-.00079	.00035	-.01344	.35536
11.900	.448	.50827	.12309	.52272	.01565	6.60547	.01353	-.00137	.00013	-.01428	.34904
11.900	.501	.51171	.12507	.52650	.01668	6.61697	.01352	-.00091	.00003	-.01438	.33217
11.900	.600	.50638	.12393	.52105	.01687	6.62600	.00762	-.00082	-.00005	-.01457	.34770
11.900	.698	.50164	.12168	.51595	.01564	6.61644	.00470	-.00071	.00025	-.01458	.34380
11.900	.800	.49557	.12042	.50975	.01566	6.60644	.00471	-.00117	.00035	-.01482	.33990
11.900	.900	.48804	.12015	.50233	.01695	6.59666	-.00116	-.00108	.00026	-.01476	.33552
11.900	1.000	.48333	.11786	.49725	.01568	6.58689	.00478	-.00074	.00026	-.01262	.33205
11.900	1.501	.47190	.11558	.48559	.01581	6.53777	.00777	-.00210	.00098	-.01440	.32316
GRADIENT	-10228	-.01749	-.10369	.00397	.19402	-.00722	.00058	.00112	-.00217	-.06599	

RUN NO. 15/0 RN/L = .43 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA	HTE/B	CL	CD	CN	CA	Q(PSF)	CY	CBL	CYN	CAB	CLM
13.970	.037	.76304	.19486	.76751	.00492	6.42038	.01609	-.00178	-.00002	-.00776	.50639
13.970	.049	.75644	.19589	.78136	.00752	6.40266	.01615	-.00270	.00020	-.00864	.50391
13.970	.099	.70324	.18794	.72781	.01265	6.35006	.01963	-.00289	-.00012	-.01133	.47824
13.970	.149	.67777	.18430	.70222	.01526	6.31999	.01989	-.00180	.00038	-.01254	.46481
13.970	.199	.64690	.17789	.67071	.01649	6.33119	.01384	-.00108	.00090	-.01360	.44692
13.970	.249	.62719	.17555	.65102	.01897	6.36966	.01685	-.00168	.00070	-.01389	.43528
13.970	.299	.61619	.17261	.63964	.01878	6.43536	.01365	-.00244	.00124	-.01385	.42858
13.970	.349	.60961	.17207	.63312	.01984	6.51236	.01351	-.00106	.00088	-.01506	.42257
13.970	.399	.59808	.16894	.62117	.01959	6.58936	.01632	-.00189	.00151	-.01403	.41633
13.970	.448	.59484	.16937	.61813	.02078	6.60947	.01626	-.00206	.00079	-.01429	.41462
13.970	.501	.58811	.16765	.61119	.02074	6.62097	.01625	-.00162	.00067	-.01359	.40925
13.970	.600	.58555	.16702	.60855	.02074	6.62422	.01622	-.00251	.00090	-.01581	.40729
13.970	.698	.58073	.16584	.60359	.02077	6.61466	.01039	-.00154	.00058	-.01747	.40412
13.970	.800	.56798	.16269	.59045	.02079	6.60466	.01336	-.00214	.00039	-.01513	.39456
13.970	.900	.56771	.16265	.59016	.02081	6.59489	.01046	-.00157	.00058	-.01513	.39492
13.970	1.000	.56406	.16176	.58643	.02083	6.58511	.01051	-.00140	.00130	-.01319	.39330
13.970	1.501	.55679	.16013	.57898	.02100	6.53600	.01055	-.00277	.00167	-.01489	.38732
GRADIENT	-13051	-.02394	-.13243	.00826	.18852	-.00576	-.00008	.00075	-.00357	-.07919	

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## TABULATED SOURCE DATA - MSC/LTV MAI

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LTV LSWT S-081 BIWIVIGI (BELT STATIONARY)

(RD0002) (07 NOV 72)

## REFERENCE DATA

## PARAMETRIC DATA

BREF = 7,8875 SQ.FT. XMRP = 75.7500 INCHES  
 LREF = 2,3400 FEET YMRP = .0000 INCHES  
 BREF = 3,6780 FEET ZMRP = 14.1100 INCHES  
 SCALE = .0000

ELVN-R = .000 ELVN-L = .000  
 ELEVON = .000

RUN NO. 16/0 RN/L = .43 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA	HTE/B	CL	CD	CN	CA	Q(PSF)	CY	CBL	CYN	CAB	CLM
16.000	.020	.91816	.24853	.95110	-.01412	6.41953	.00934	-.00318	-.00040	-.00514	.59793
16.000	.049	.86219	.24167	.89540	-.00529	6.37653	.01277	-.00497	.00053	-.00804	.57644
16.000	.099	.79544	.23046	.82815	.00232	6.33453	.01021	-.00283	.00103	-.01353	.54381
16.000	.149	.76843	.22670	.80115	.00615	6.31999	.01049	-.00033	.00108	-.01309	.53189
16.000	.199	.74205	.22177	.77444	.00868	6.34090	.01362	-.00049	.00076	-.01488	.51772
16.000	.249	.71547	.21540	.74713	.00989	6.38713	.01360	-.00005	.00063	-.01510	.50001
16.000	.299	.70417	.21472	.73608	.01235	6.46254	.01343	-.00094	.00089	-.01511	.49371
16.000	.349	.69028	.21057	.72158	.01218	6.53954	.01330	-.00094	.00088	-.01604	.48501
16.000	.399	.68001	.20860	.71122	.01331	6.60235	.01029	.00053	.00078	-.01589	.47860
16.000	.448	.67186	.20772	.70309	.01452	6.61335	.01617	.00024	.00017	-.01611	.47361
16.000	.501	.67322	.20683	.70415	.01329	6.62485	.01310	-.00201	.00042	-.01620	.47347
16.000	.600	.66895	.20561	.69971	.01329	6.62249	.00723	-.00169	-.00051	-.01671	.47010
16.000	.698	.66390	.20550	.69483	.01458	6.61294	.00726	-.00173	.00103	-.01710	.46634
16.000	.800	.65710	.20355	.68775	.01458	6.60294	.00435	-.00136	.00049	-.01592	.46240
16.000	.900	.65367	.20259	.68419	.01460	6.59316	.00437	-.00204	.00147	-.01780	.46133
16.000	1.000	.64788	.20091	.67816	.01458	6.58338	.00744	.00020	.00122	-.01796	.45713
16.000	1.501	.64477	.20015	.67496	.01471	6.53427	.00447	-.00119	.00122	-.01722	.45453
GRADIENT	-.14907	-.02886	-.15125	.01333	.18610	-.00652	.00092	.00050	-.00579	-.08523	

RUN NO. 17/0 RN/L = .43 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA	HTE/B	CL	CD	CN	CA	Q(PSF)	CY	CBL	CYN	CAB	CLM
16.000	.022	1.01102	.29864	1.05382	-.02833	6.39193	.01215	-.00240	.00068	-.00524	.66023
16.000	.049	.96069	.29153	1.00376	-.01954	6.36340	.00652	.00016	.00052	-.00731	.64187
16.000	.099	.89276	.28154	.93607	-.00805	6.31999	.00998	-.00203	.00169	-.01198	.61283
16.000	.149	.84218	.27186	.88497	-.00163	6.32286	.01638	-.00192	.00091	-.01638	.58694
16.000	.199	.82004	.26732	.86252	.00088	6.35465	.01043	.00292	.00000	-.01597	.57546
16.000	.249	.78700	.25929	.82861	.00345	6.41202	.01635	-.00191	.00089	-.01649	.55625
16.000	.299	.77773	.25623	.81885	.00341	6.48902	.01018	-.00135	.00062	-.01705	.55099
16.000	.349	.76162	.25224	.80230	.00459	6.56602	.01607	-.00055	.00042	-.01658	.54120
16.000	.399	.75441	.25118	.79310	.00581	6.60614	.01600	-.00010	.00027	-.01684	.53680
16.000	.448	.75642	.25185	.79722	.00583	6.61714	.01297	-.00104	.00016	-.01814	.53744
16.000	.501	.75023	.25119	.79112	.00707	6.62864	.01003	-.00025	-.00032	-.01924	.53273
16.000	.600	.74785	.25036	.78882	.00708	6.62081	.01003	-.00112	-.00023	-.01897	.53183
16.000	.698	.73735	.24831	.77800	.00855	6.61126	.00420	-.00039	.00021	-.01918	.52395
16.000	.800	.73297	.24690	.77340	.00836	6.60126	.00712	-.00185	.00036	-.01916	.52143
16.000	.900	.73226	.24534	.77225	.00709	6.59148	.00426	-.00017	.00092	-.01754	.52156
16.000	1.000	.73006	.24461	.76992	.00708	6.58170	.00726	.00032	.00118	-.02082	.52035
16.000	1.501	.71745	.24058	.75668	.00714	6.53259	.00730	-.00057	.00150	-.01708	.50949
GRADIENT	-.15828	-.03394	-.16102	.01661	.18654	-.00538	.00048	.00029	-.00632	-.08789	

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## TABULATED SOURCE DATA - MSC/LTV MA1

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LTV LSWT S-081 BIWIVIGI (BELT STATIONARY)

(R00002) (07 NOV 72)

## REFERENCE DATA

## PARAMETRIC DATA

BREP = 7.6675 SQ.FT. XMRP = 75.7500 INCHES  
 LREP = 2.5400 FEET YMRP = .0000 INCHES  
 BREP = 3.6780 FEET ZMRP = 14.1100 INCHES  
 SCALE = .0000

ELVN-R = .000 ELVN-L = .000  
 ELEVON = .000

RUN NO. 18/0 RN/L = .42 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA	HTE/B	CL	CD	CN	CA	Q(PSF)	CY	CBL	CYN	CAB	CLM
20.070	.068	1.00841	.34333	1.06499	-.02350	6.33194	.01245	-.00395	.00050	-.00846	.68459
20.070	.099	.96502	.33846	1.02257	-.01318	6.31999	.00662	-.00296	.00003	-.01290	.66808
20.070	.149	.91378	.32932	.97131	-.00418	6.33252	.01011	.00116	-.00108	-.01743	.64507
20.070	.199	.88638	.32349	.94356	-.00026	6.37205	.00402	.00131	.00041	-.01931	.62842
20.070	.249	.85419	.31436	.91020	.00222	6.43908	.01014	.00051	-.00002	-.02080	.61195
20.070	.299	.83597	.30903	.89125	.00345	6.51608	.01006	.00050	-.00002	-.02104	.60069
20.070	.349	.83059	.30702	.88552	.00340	6.59308	.00996	.00136	-.00035	-.02053	.59676
20.070	.399	.82156	.30505	.87635	.00465	6.61000	.01285	-.00052	.00000	-.02039	.59194
20.070	.448	.82193	.30651	.87720	.00590	6.62100	.00991	.00025	-.00072	-.02192	.59248
20.070	.501	.82102	.30614	.87623	.00586	6.62887	.00704	.00213	-.00108	-.02248	.59309
20.070	.600	.80918	.30183	.86360	.00588	6.61909	.00115	.00048	-.00054	-.02252	.58559
20.070	.698	.81366	.30425	.87054	.00592	6.60954	.00110	.00014	.00116	-.02225	.58841
20.070	.800	.81251	.30311	.86719	.00593	6.59954	.00112	.00013	.00117	-.02236	.58620
20.070	.900	.80020	.29994	.85454	.00718	6.58976	-.00471	.00046	.00175	-.02313	.57976
20.070	1.000	.79594	.29834	.84999	.00713	6.57998	-.00165	.00287	.00049	-.02204	.57728
20.070	1.501	.79725	.29817	.85048	.00465	6.53087	.00423	.00088	.00213	-.02169	.57698
GRADIENT	-.11596	-.02873	-.11678	.01279	.17279	-.00690	.00189	.00163	-.00609	-.06309	

DATE OF NOV 72

## TABULATED SOURCE DATA - MSC/LTV MAS

PAGE 19

LTV LSWT S-081 B1W1V1G1 (BELT MOVING)

(R00003) (07 NOV 72)

## REFERENCE DATA

## PARAMETRIC DATA

SRDP = 7.6675 SQ.FT. XMRP = 75.7500 INCHES  
 LRDP = 2.5400 FEET YMRP = .0000 INCHES  
 BRDP = 3.6780 FEET ZMRP = 14,1100 INCHES  
 SCALE = .0000

ELVN-R = -20.000 ELVN-L = -20.000  
 ELEVON = -20.000

RUN NO. 31/ 0 RN/L = .44 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA	HTE/B	CL	CD	CN	CA	Q(PSF)	CY	CBL	CYN	CAB	CLM
-4.000	.199	-.49564	.09957	-.50138	.06476	6.41856	.00572	.00140	-.00040	-.01508	-.23030
-4.000	.249	-.45874	.09508	-.46425	.06286	6.35993	-.00051	.00239	.00112	-.01495	-.21392
-4.000	.299	-.44639	.09478	-.45391	.06328	6.31999	.00558	.00176	.00194	-.01405	-.20858
-4.000	.349	-.43015	.09219	-.43553	.06196	6.32503	.00242	.00227	.00233	-.01442	-.20014
-4.000	.399	-.41934	.09244	-.42476	.06296	6.35856	.00541	.00076	.00265	-.01395	-.19358
-4.000	.448	-.41785	.09176	-.42323	.06240	6.41810	.00531	-.00066	.00254	-.01287	-.19360
-4.000	.501	-.41032	.09048	-.41563	.06164	6.49860	.00821	-.00218	.00359	-.01370	-.18984
-4.000	.600	-.40015	.08878	-.40537	.06066	6.60751	.00212	-.00243	.00270	-.01041	-.18563
-4.000	.698	-.39543	.08699	-.40053	.05920	6.62901	.00507	-.00256	.00362	-.01175	-.18236
-4.000	.800	-.39711	.08719	-.40223	.05926	6.62043	.00505	-.00297	.00307	-.01233	-.18370
-4.000	.900	-.39877	.08601	-.40180	.05813	6.61065	-.00084	-.00190	.00232	-.01113	-.18532
-4.000	1.000	-.39864	.08497	-.40360	.05696	6.60087	.00205	-.00236	.00123	-.01060	-.18734
-4.000	1.498	-.40063	.08429	-.40554	.05614	6.55198	.00203	-.00290	.00195	-.01089	-.18963
GRADIENT		.05794	-.01093	.05855	-.00687	.23513	-.00231	-.00446	.00058	.00376	.02448

RUN NO. 32/ 0 RN/L = .44 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA	HTE/B	CL	CD	CN	CA	Q(PSF)	CY	CBL	CYN	CAB	CLM
-2.050	.165	-.42703	.09025	-.42998	.07492	6.44184	-.00349	-.00021	.00053	-.01491	-.17834
-2.050	.199	-.37773	.08780	-.38063	.07424	6.39350	-.00359	.00311	.00139	-.01460	-.15076
-2.050	.249	-.37248	.08625	-.37540	.07487	6.34438	-.00376	.00220	.00062	-.01445	-.15128
-2.050	.299	-.35581	.08667	-.35868	.07388	6.31999	-.00384	.00171	.00138	-.01415	-.14171
-2.050	.349	-.35142	.08767	-.35433	.07505	6.33475	-.00080	.00116	.00179	-.01407	-.14094
-2.050	.399	-.34804	.08578	-.35089	.07328	6.37605	.00219	-.00035	.00217	-.01459	-.14047
-2.050	.448	-.33960	.08471	-.34241	.07251	6.44531	-.00085	.00017	.00250	-.01514	-.13672
-2.050	.501	-.32834	.08343	-.33111	.07163	6.52581	-.00069	-.00075	.00244	-.01148	-.13055
-2.050	.600	-.32185	.08103	-.32454	.06947	6.61139	-.00093	-.00166	.00239	-.01074	-.12819
-2.050	.698	-.32105	.08084	-.32373	.06930	6.62870	-.00368	-.00207	.00270	-.01248	-.12830
-2.050	.800	-.32399	.08106	-.32668	.06942	6.61870	-.00391	-.00208	.00271	-.00975	-.13205
-2.050	.900	-.32336	.07988	-.32601	.06827	6.60892	-.00688	-.00154	.00158	-.01193	-.13179
-2.050	1.000	-.32510	.07879	-.32771	.06711	6.59914	-.00691	-.00152	.00085	-.01016	-.13375
-2.050	1.501	-.33224	.06082	-.33492	.06889	6.55003	-.00401	-.00204	.00051	-.01177	-.13855
GRADIENT		.05183	-.00627	.05209	-.00641	.22073	-.00260	-.00345	-.00020	.00361	.01644

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## TABULATED SOURCE DATA - HSC/LTV HIS

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LTV LSWT S-001 B1W1V1G1 (BELT MOVING)

(R00003) (07 NOV 72)

## REFERENCE DATA

BREF = 7.6675 SQ.FT. XMRP = 75.7500 INCHES  
 LREF = 2.5400 FEET YMRP = .0000 INCHES  
 BREF = 3.6780 FEET ZMRP = 14.1100 INCHES  
 SCALE = .0000

## PARAMETRIC DATA

ELVN-R = -20.000 ELVN-L = -20.000  
 ELEVON = -20.000

RUN NO. 33/0 RN/L = .43 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA	HTE/B	CL	CD	CN	CA	Q(PSF)	CY	CBL	CYN	CAB	CLM
.000	.148	-.32899	.08523	-.32899	.08523	6.43966	-.00948	.00389	.00040	-.01524	-.10047
.000	.199	-.30537	.07969	-.30537	.07969	6.37202	-.00669	.00574	.00006	-.01574	-.09471
.000	.249	-.28094	.07899	-.28094	.07899	6.32802	-.00685	.00531	.00084	-.01563	-.08132
.000	.299	-.26030	.07650	-.26030	.07650	6.31999	-.00386	.00428	.00128	-.01545	-.06442
.000	.349	-.27689	.07756	-.27689	.07756	6.34497	-.00397	.00188	.00054	-.01544	-.06434
.000	.399	-.26753	.07565	-.26753	.07565	6.39693	-.00091	.00180	.00172	-.01481	-.08068
.000	.448	-.26320	.07604	-.26320	.07604	6.47393	-.00091	.00132	.00246	-.01408	-.07929
.000	.501	-.26232	.07513	-.26232	.07513	6.55443	-.00096	-.00054	.00245	-.01437	-.08009
.000	.600	-.25759	.07318	-.25759	.07318	6.61548	-.00095	-.00008	.00242	-.01355	-.07824
.000	.698	-.26189	.07308	-.26189	.07308	6.62668	-.00393	-.00095	.00202	-.01364	-.06252
.000	.800	-.26237	.07195	-.26237	.07195	6.61688	-.00983	-.00039	.00193	-.01268	-.08376
.000	.900	-.26158	.07204	-.26158	.07204	6.60710	-.00690	.00000	.00088	-.01234	-.08322
.000	1.000	-.26433	.07089	-.26433	.07089	6.59733	-.00397	-.00006	.00055	-.01284	-.08576
.000	1.501	-.26678	.07017	-.26678	.07017	6.54821	-.00702	-.00048	.00015	-.01044	-.08975
GRADIENT		.02971	-.00926	.02971	-.00926	.21000	-.00102	-.00458	-.00021	.00401	.00193

RUN NO. 37/0 RN/L = .44 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA	HTE/B	CL	CD	CN	CA	Q(PSF)	CY	CBL	CYN	CAB	CLM
1.970	.133	-.22993	.06844	-.22745	.07630	6.43530	-.00366	.00481	.00030	-.01658	-.03512
1.970	.149	-.22613	.06758	-.22368	.07532	6.41275	-.00073	.00382	.00078	-.01593	-.03594
1.970	.199	-.20914	.06630	-.20673	.07345	6.35632	-.00697	.00446	.00146	-.01485	-.03035
1.970	.249	-.20692	.06682	-.20450	.07390	6.31999	-.00398	.00489	.00111	-.01507	-.03171
1.970	.299	-.19835	.06708	-.19593	.07385	6.32728	-.00208	.00336	.00203	-.01633	-.02915
1.970	.349	-.20092	.06659	-.19851	.07345	6.36261	-.00203	.00286	.00204	-.01586	-.03197
1.970	.399	-.19548	.06609	-.19309	.07277	6.42441	.00198	.00192	.00282	-.01653	-.03054
1.970	.448	-.18723	.06424	-.18491	.07064	6.50141	.00192	.00187	.00204	-.01521	-.02702
1.970	.501	-.18380	.06224	-.18155	.06852	6.58191	.00484	.00136	.00319	-.01611	-.02713
1.970	.600	-.18745	.06302	-.18517	.06942	6.61941	-.00114	-.00041	.00170	-.01476	-.02985
1.970	.698	-.18961	.06289	-.18734	.06937	6.62514	-.00407	-.00077	.00278	-.01373	-.03115
1.970	.800	-.19108	.06169	-.18885	.06822	6.61514	-.00700	.00016	.00234	-.01626	-.03297
1.970	.900	-.19609	.06163	-.19386	.06833	6.60536	-.00999	.00017	.00120	-.01349	-.03700
1.970	1.000	-.19755	.06166	-.19531	.06841	6.59558	-.00409	.00049	.00052	-.01484	-.03616
1.970	1.501	-.19902	.06087	-.19681	.06768	6.54647	-.00715	-.00039	.00015	-.01190	-.03910
GRADIENT		.01649	-.00605	.01627	-.00662	.21054	-.00539	-.00433	-.00054	.00262	-.00537

DATE OF NOV 72

TABULATED SOURCE DATA - MSC/LTV MA1

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LTV LSWT S-001 BIWIVIGI (BELT MOVING)

(R00003) (07 NOV 72)

## REFERENCE DATA

BREP = 7.8675 SQ.FT. XMRP = 75.7500 INCHES  
 LREP = 2.5400 FEET YMRP = .0000 INCHES  
 BREP = 3.6760 FEET ZMRP = 14.1100 INCHES  
 SCALE = .0000

## PARAMETRIC DATA

ELVN-R = -20.000 ELVN-L = -20.000  
 ELEVON = -20.000

RUN NO. 36/0 RNVL = .44 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA	HTE/B	CL	CD	CN	CA	Q(PSF)	CY	CBL	CYN	CAB	CLM
3.930	.117	-.15535	.06459	-.15056	.07508	6.43274	-.00685	.00359	.00057	-.01609	.02005
3.930	.149	-.13867	.06372	-.13398	.07308	6.38763	-.00398	.00399	.00021	-.01631	.02495
3.930	.199	-.12783	.06243	-.12325	.07104	6.34073	-.00408	.00543	.00011	-.01534	.02647
3.930	.249	-.12234	.06176	-.11762	.07000	6.31999	-.00108	.00499	.00136	-.01456	.02654
3.930	.299	-.12453	.06144	-.12003	.06983	6.33703	.00195	.00398	.00186	-.01492	.02324
3.930	.349	-.12366	.05974	-.11928	.06808	6.38015	.00189	.00300	.00192	-.01456	.02195
3.930	.399	-.11262	.05975	-.10846	.06735	6.45169	.00181	.00251	.00194	-.01496	.02713
3.930	.448	-.11742	.05992	-.11304	.06783	6.52869	.00178	.00155	.00199	-.01470	.02368
3.930	.501	-.11269	.05951	-.10834	.06710	6.60130	.00173	.00108	.00201	-.01348	.02496
3.930	.600	-.11984	.05782	-.11161	.06563	6.62330	.00172	.00151	.00197	-.01271	.02046
3.930	.698	-.12396	.05852	-.11966	.06688	6.62341	.00171	.00015	.00207	-.01363	.01650
3.930	.800	-.12426	.05862	-.11995	.06700	6.61341	-.00417	.00071	.00196	-.01506	.01517
3.930	.900	-.12667	.05730	-.12245	.06584	6.60363	-.00714	.00067	.00081	-.01418	.01366
3.930	1.000	-.13036	.05712	-.12613	.06592	6.59385	.00170	.00089	-.00019	-.01293	.01081
3.930	1.501	-.13122	.05629	-.12705	.06513	6.54474	-.00128	.00046	-.00057	-.01295	.01113
GRADIENT	.00350	-.00572	.00311	-.00595	.20928	.00060	-.00362	-.00081	.00236	-.01270	

RUN NO. 36/0 RNVL = .44 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA	HTE/B	CL	CD	CN	CA	Q(PSF)	CY	CBL	CYN	CAB	CLM
0.000	.102	-.04336	.06066	-.03678	.06466	6.42886	-.00105	.00452	.00041	-.01719	.09350
0.000	.149	-.04136	.05760	-.03511	.06161	6.36832	.00191	.00460	.00161	-.01707	.08956
0.000	.199	-.04813	.05737	-.04187	.06208	6.32433	.00494	.00459	.00207	-.01428	.07974
0.000	.249	-.04701	.05754	-.04074	.06213	6.31999	.00798	.00402	.00179	-.01416	.07956
0.000	.299	-.04189	.05650	-.03575	.06057	6.34911	.00789	.00305	.00189	-.01440	.08128
0.000	.349	-.04393	.05448	-.03800	.05878	6.40340	.00778	.00254	.00194	-.01470	.07671
0.000	.399	-.04352	.05385	-.03765	.05810	6.48040	.00465	.00213	.00230	-.01274	.07443
0.000	.448	-.04667	.05411	-.04075	.05869	6.55740	.00755	.00156	.00200	-.01416	.07087
0.000	.501	-.04854	.05348	-.04268	.05826	6.60541	.00747	.00018	.00214	-.01244	.07038
0.000	.600	-.05073	.05306	-.04491	.05808	6.62741	.00744	.00017	.00214	-.01376	.06794
0.000	.698	-.05306	.05162	-.04737	.05689	6.62158	.00157	.00072	.00200	-.01371	.06512
0.000	.800	-.05544	.05145	-.04976	.05697	6.61158	.00158	.00072	.00200	-.01213	.06390
0.000	.900	-.06134	.05092	-.05568	.05705	6.60180	.00155	.00010	.00059	-.01242	.05980
0.000	1.000	-.06504	.05188	-.05926	.05859	6.59203	-.00134	.00111	.00081	-.01400	.05809
0.000	1.501	-.06889	.05064	-.06322	.05756	6.54292	.00157	.00001	-.00013	-.01295	.05588
GRADIENT	-.02129	-.00670	-.02187	-.00444	.20667	-.00352	-.00370	-.00107	.00240	-.02669	

DATE OF NOV 72

## TABULATED SOURCE DATA - MSC/LTV MAS

PAGE 18

LTV LSWT S-001 B1W1W1G1 (BELT MOVING)

(R00003) (07 NOV 72)

## REFERENCE DATA

## PARAMETRIC DATA

BREF = 7.8875 SQ.FT. XMRP = 75.7500 INCHES  
 LREF = 8.9400 FEET YMRP = .0000 INCHES  
 BREF = 3.8780 FEET ZMRP = 14.1100 INCHES  
 SCALE = .0000

ELVN-R = -20.000 ELVN-L = -20.000  
 ELEVON = -20.000

RUN NO. 39/0 RN/L = .43 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA	HTE/B	CL	CD	CN	CA	Q(PSF)	CY	CBL	CYN	CAB	CLM
7.930	.066	.05321	.06515	.06168	.05719	6.42688	.00168	.00301	-.00062	-.01738	.15931
7.930	.099	.04617	.06305	.05443	.05608	6.40755	-.00132	.00414	.00032	-.01662	.15199
7.930	.149	.03790	.06111	.04597	.05530	6.35310	-.00443	.00319	.00053	-.01597	.14126
7.930	.199	.03070	.06043	.03874	.05561	6.31999	-.00755	.00463	.00094	-.01521	.13507
7.930	.249	.04039	.05779	.04817	.05164	6.32930	.00155	.00328	.00169	-.01634	.13651
7.930	.299	.04031	.05744	.04785	.05133	6.36625	.00765	.00316	.00177	-.01617	.13480
7.930	.349	.03005	.05613	.03778	.05343	6.43005	.00148	.00173	.00112	-.01470	.12753
7.930	.399	.03195	.05777	.03962	.05281	6.50706	.00145	.00181	.00165	-.01465	.12646
7.930	.448	.02935	.05679	.03690	.05219	6.58406	.00141	.00078	.00123	-.01440	.12456
7.930	.501	.03514	.05614	.04255	.05075	6.60921	-.00156	.00077	.00082	-.01436	.12718
7.930	.600	.02792	.05625	.03541	.05186	6.62945	-.00449	.00041	.00120	-.01447	.12215
7.930	.698	.02216	.05553	.02961	.05194	6.61989	-.00742	.00051	.00152	-.01482	.11812
7.930	.800	.01871	.05512	.02613	.05201	6.60989	-.00449	.00040	.00121	-.01365	.11543
7.930	.900	.01297	.05438	.02035	.05207	6.60011	-.00152	.00075	.00082	-.01131	.11185
7.930	1.000	.01314	.05321	.02035	.05089	6.59033	-.00154	.00074	.00063	-.01424	.11136
7.930	1.501	.00974	.05314	.01698	.05129	6.54122	-.00160	-.00073	.00030	-.01303	.10975
GRADIENT	-	.02897	-.00748	-.02972	-.00342	.19779	-.00206	-.00379	.00001	.00301	-.03227

RUN NO. 40/0 RN/L = .43 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA	HTE/B	CL	CD	CN	CA	Q(PSF)	CY	CBL	CYN	CAB	CLM
10.100	.068	.15422	.07513	.16500	.04693	6.42459	-.00456	.00422	-.00029	-.01878	.22875
10.100	.099	.15063	.07221	.16098	.04467	6.38013	-.00156	.00517	-.00002	-.01898	.22162
10.100	.149	.13633	.06734	.14603	.04239	6.33607	-.00466	.00481	.00040	-.01497	.20864
10.100	.199	.12899	.06751	.13883	.04385	6.31999	-.00166	.00422	.00017	-.01643	.20058
10.100	.249	.12397	.06515	.13347	.04241	6.33994	-.00168	.00372	.00026	-.01730	.19558
10.100	.299	.12086	.06299	.13003	.04082	6.38539	-.00172	.00275	.00044	-.01430	.19122
10.100	.349	.11478	.06144	.12378	.04036	6.45984	.00126	.00135	.00112	-.01620	.18587
10.100	.399	.11218	.06051	.12103	.03990	6.53684	-.00173	.00131	.00069	-.01406	.18165
10.100	.448	.11343	.06033	.12225	.03951	6.60197	.00120	.00029	.00034	-.01454	.18209
10.100	.501	.10981	.05961	.11857	.03943	6.61347	.00121	.00028	.00053	-.01447	.17979
10.100	.600	.10837	.05929	.11709	.03937	6.62755	-.00176	-.00050	.00102	-.01469	.17786
10.100	.698	.10393	.05856	.11259	.03943	6.61800	-.00467	.00005	.00125	-.01535	.17502
10.100	.800	.09949	.05763	.10809	.03949	6.60800	-.00762	.00003	.00084	-.01582	.17219
10.100	.900	.09616	.05728	.10472	.03954	6.59822	-.00467	.00036	.00045	-.01378	.16956
10.100	1.000	.09394	.05696	.10247	.03961	6.58844	-.00763	.00047	.00077	-.01473	.16759
10.100	1.501	.08935	.06031	.09854	.04371	6.53933	-.00471	-.00007	.00054	-.01317	.16636
GRADIENT	-	.04338	-.00999	-.04446	-.00222	.19779	-.00340	-.00395	.00048	.00287	-.04045

DATE OF NOV 72

## TABULATED SOURCE DATA - MSC/LTV-HAI

PAGE 10

LTV LWT S-081 BIWIVIGI (BELT MOVING)

(R00003) (07 NOV 72)

## REFERENCE DATA

## PARAMETRIC DATA

BREF = 7.6675 SQ.FT. XMRP = 75.7500 INCHES  
 LREF = 2.5400 FEET YMRP = .0000 INCHES  
 BREF = 3.6780 FEET ZMRP = 14.1100 INCHES  
 SCALE = .0000

ELVN-R = -20.000 ELVN-L = -20.000  
 ELEVON = -20.000

RUN NO. 41/0 RN/L = .43 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA	HTE/B	CL	CD	CN	CA	Q(PSF)	CY	CBL	CYN	CAB	CLM
11.900	.054	.27671	.10908	.29325	.04968	6.42198	.01624	.00196	-.00079	-.01581	.30997
11.900	.099	.24834	.10220	.26408	.04880	6.36605	.01039	.00465	.00009	-.01717	.28810
11.900	.149	.23339	.09807	.24859	.04764	6.32205	.00739	.00525	.00033	-.01508	.27507
11.900	.199	.22271	.09582	.23768	.04785	6.32120	.01046	.00386	.00107	-.01666	.26796
11.900	.249	.21347	.09231	.22792	.04632	6.35167	.01345	.00339	.00160	-.01483	.25887
11.900	.299	.20435	.09130	.21879	.04721	6.40738	.00728	.00330	.00074	-.01693	.23319
11.900	.349	.19999	.08720	.21367	.04409	6.48438	.01616	.00271	.00136	-.01449	.24570
11.900	.399	.19055	.08598	.20418	.04485	6.56138	.01002	.00172	.00071	-.01366	.23947
11.900	.448	.18667	.08613	.20043	.04582	6.60547	.01267	.00114	.00050	-.01388	.23543
11.900	.501	.19124	.08574	.20481	.04447	6.61697	.00993	.00171	.00071	-.01407	.23923
11.900	.600	.18295	.08395	.19633	.04442	6.62600	.00989	.00080	.00091	-.01325	.23251
11.900	.698	.17867	.08312	.19197	.04449	6.61644	.00697	.00048	.00132	-.01581	.23020
11.900	.800	.16981	.08131	.18292	.04455	6.60644	.00406	.00088	.00082	-.01497	.22435
11.900	.900	.16755	.08217	.18069	.04586	6.59666	.00412	.00149	.00144	-.01455	.22401
11.900	1.000	.16204	.08108	.17527	.04593	6.58689	.00706	.00091	.00123	-.01197	.21969
11.900	1.501	.16121	.07998	.17424	.04503	6.53777	.00410	-.00031	.00186	-.01326	.21980
GRADIENT	-.07096	-.01760	-.07307	-.00259	.19402	-.00687	-.00320	.00109	.00232	-.05541	

RUN NO. 42/0 RN/L = .43 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA	HTE/B	CL	CD	CN	CA	Q(PSF)	CY	CBL	CYN	CAB	CLM
13.970	.037	.39886	.13195	.41892	.03178	6.42038	.00973	.00133	.00000	-.01640	.38450
13.970	.049	.38588	.12880	.40556	.03185	6.40266	.00983	.00242	.00050	-.01510	.37506
13.970	.099	.34680	.11928	.36534	.03204	6.35006	.00700	.00345	.00039	-.01676	.35105
13.970	.149	.32847	.11354	.34617	.03090	6.31999	.00392	.00243	.00042	-.01570	.33608
13.970	.199	.31606	.11057	.33335	.03082	6.33119	.00398	.00355	.00093	-.01462	.32717
13.970	.249	.31041	.11011	.32781	.03193	6.36966	.00398	.00289	.00030	-.01524	.32429
13.970	.299	.29327	.10551	.31007	.03160	6.43536	.00695	.00197	.00096	-.01487	.31130
13.970	.349	.26977	.10427	.30638	.03125	6.51236	.00683	.00105	.00118	-.01316	.30688
13.970	.399	.29010	.10267	.30631	.02961	6.58936	.00677	.00192	.00093	-.01482	.30551
13.970	.448	.26575	.10151	.30180	.02993	6.60947	.00963	.00071	.00014	-.01419	.30063
13.970	.501	.27740	.09937	.29318	.02948	6.62097	.00668	.00021	-.00014	-.01389	.29569
13.970	.600	.26822	.09707	.28372	.02946	6.62422	.00376	.00034	.00016	-.01416	.28936
13.970	.698	.26713	.09815	.28293	.03077	6.61466	.00083	.00047	.00047	-.01422	.28888
13.970	.800	.25732	.09576	.27263	.03081	6.60466	-.00210	.00042	.00006	-.01391	.28201
13.970	.900	.25664	.09562	.27213	.03085	6.59489	-.00208	.00042	.00006	-.01464	.28266
13.970	1.000	.25618	.09604	.27373	.03088	6.58511	.00385	.00069	.00160	-.01428	.28420
13.970	1.501	.24912	.09666	.26508	.03367	6.53600	.00090	.00038	.00204	-.01407	.27848
GRADIENT	-.09196	-.02243	-.09466	.00042	.18852	-.00644	-.00204	.00068	.00133	-.06708	

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## TABULATED SOURCE DATA - MSC/LTV MAI

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LTV LSWT S-001 B1W1V1G1 (BELT MOVING)

(R00003) (07 NOV 72)

## REFERENCE DATA

BREP = 7.6675 SQ.FT. XMRP = 75.7500 INCHES  
 LREP = 2.5400 FEET YMRP = .0000 INCHES  
 BREP = 3.6760 FEET ZMRP = 14.1100 INCHES  
 SCALE = .0000

## PARAMETRIC DATA

ELVN-R = -20.000 ELVN-L = -20.000  
 ELEVON = -20.000

RUN NO. 43/ 0 RN/L = .43 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA	HTE/B	CL	CD	CN	CA	Q(PSF)	CY	CBL	CYN	CAB	CLM
16.000	.020	.55977	.17497	.58631	.01393	6.41689	.00916	.00186	-.00019	-.01478	.48154
16.000	.049	.50545	.16479	.53129	.01911	6.37853	.00642	.00200	.00011	-.01545	.45324
16.000	.099	.47014	.15609	.49495	.02048	6.33453	.00663	.00311	.00058	-.01516	.43196
16.000	.149	.43387	.14568	.45722	.02047	6.31999	.00982	.00246	.00041	-.01653	.40896
16.000	.199	.41690	.14208	.43991	.02168	6.34090	.00986	.00336	.00014	-.01424	.39747
16.000	.249	.41196	.13915	.43435	.02023	6.38713	.00672	.00256	.00072	-.01511	.39347
16.000	.299	.39684	.13647	.42101	.02126	6.46254	.00967	.00194	.00054	-.01468	.38436
16.000	.349	.38925	.13478	.41132	.02228	6.53954	.01252	.00132	.00036	-.01589	.37646
16.000	.399	.37880	.13157	.40039	.02208	6.60235	.00356	.00133	-.00014	-.01572	.36846
16.000	.448	.37851	.13014	.39972	.02076	6.61335	.00942	.00079	.00009	-.01491	.36721
16.000	.501	.36829	.12791	.38735	.02201	6.62485	.00645	.00008	-.00088	-.01452	.35840
16.000	.600	.36497	.12884	.38634	.02327	6.62249	.00354	.00044	.00011	-.01503	.35851
16.000	.698	.36136	.12655	.38224	.02206	6.61294	.00057	-.00050	-.00002	-.01517	.35573
16.000	.800	.35489	.12602	.37587	.02333	6.60294	-.00230	.00051	.00001	-.01523	.35294
16.000	.900	.35537	.12621	.37639	.02338	6.59316	-.00527	.00022	.00045	-.01520	.35302
16.000	1.000	.34604	.12411	.36876	.02339	6.58338	.00364	.00083	.00154	-.01509	.34801
16.000	1.501	.34617	.12376	.36687	.02357	6.53427	-.00229	.00027	.00086	-.01454	.34639
GRADIENT		-.11586	-.02895	-.11935	.00410	.18622	-.00973	-.00206	.00047	.00033	-.07708

RUN NO. 44/ 0 RN/L = .43 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA	HTE/B	CL	CD	CN	CA	Q(PSF)	CY	CBL	CYN	CAB	CLM
16.000	.022	.65070	.21674	.68583	.00510	6.39193	.00276	.00226	.00194	-.01003	.53637
16.000	.049	.59667	.20318	.63025	.00889	6.36340	.00606	.00073	.00209	-.01379	.51195
16.000	.099	.54587	.18934	.57766	.01142	6.31999	.01255	.00264	.00072	-.01259	.48339
16.000	.149	.52220	.18299	.55319	.01270	6.32286	.00648	.00249	.00150	-.01339	.47002
16.000	.199	.49773	.17493	.52744	.01261	6.35463	.00648	.00153	.00180	-.01432	.45321
16.000	.249	.48964	.17352	.51930	.01375	6.41202	.00953	.00228	.00117	-.01445	.44962
16.000	.299	.47993	.17155	.50945	.01486	6.48902	.00939	.00202	.00045	-.01334	.44021
16.000	.349	.45845	.16568	.48721	.01593	6.56602	.00639	.00235	-.00011	-.01192	.42682
16.000	.399	.43235	.16360	.48077	.01584	6.60614	.01221	.00094	.00043	-.01314	.42182
16.000	.448	.45387	.16407	.48235	.01582	6.61714	.01215	-.00014	.00002	-.01269	.42334
16.000	.501	.44641	.16163	.47451	.01580	6.62864	.00626	-.00007	-.00007	-.01314	.41775
16.000	.600	.44135	.16001	.46920	.01582	6.62081	.00626	-.00051	.00007	-.01272	.41361
16.000	.698	.44047	.16108	.46669	.01711	6.61126	.00039	-.00019	.00066	-.01396	.41374
16.000	.800	.43229	.15843	.46009	.01711	6.60126	.00045	.00066	.00037	-.01648	.40861
16.000	.900	.42961	.15758	.45728	.01714	6.59148	.00047	.00045	.00122	-.00976	.40723
16.000	1.000	.42680	.15863	.45683	.01839	6.58170	.00648	.00235	.00145	-.01517	.40782
16.000	1.501	.42003	.15461	.44725	.01727	6.53259	.00351	.00074	.00236	-.01451	.40152
GRADIENT		-.12321	-.03313	-.12742	.00656	.18654	-.00446	-.00110	.00016	-.00120	-.07781

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## TABULATED SOURCE DATA - MSC/LTV MA1

PAGE 21

LTV LWT S-001 BIWIVIGI (BELT MOVING)

(R00003) (07 NOV 72 )

## REFERENCE DATA

## PARAMETRIC DATA

BREF = 7.8675 SQ.FT. XMRP = 75.7500 INCHES  
 LRDP = 2.5400 FEET YMRP = .0000 INCHES  
 BREF = 3.6780 FEET ZMRP = 14.1100 INCHES  
 SCALE = .0000

ELVN-R = -20.000 ELVN-L = -20.000  
 ELEVON = -20.000

RUN NO. 45/0 RN/L = .43 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA	HTE/B	CL	CD	CN	CA	Q(PSF)	CY	CBL	CYN	CAB	CLM
20.070	.075	.65932	.24198	.69857	.00245	6.32494	.00288	.00192	.00203	-.01257	.53573
20.070	.099	.65732	.23673	.67986	.00371	6.31999	.00296	.00146	.00219	-.01403	.54718
20.070	.149	.60619	.22664	.64716	.00489	6.33252	.00933	.00378	.00057	-.01361	.52929
20.070	.199	.57893	.21942	.61909	.00745	6.37205	.00929	.00196	.00124	-.01405	.51227
20.070	.249	.56702	.21630	.60681	.00862	6.43908	.00325	.00371	-.00114	-.01409	.50556
20.070	.299	.55552	.21333	.59499	.00977	6.51608	.00325	.00393	-.00042	-.01475	.49802
20.070	.349	.53807	.20681	.57637	.00964	6.59308	.00912	.00310	-.00084	-.01415	.48425
20.070	.399	.52567	.20590	.57380	.00961	6.61000	.00911	.00310	-.00084	-.01352	.48324
20.070	.448	.53353	.20597	.57407	.00959	6.62100	.00908	.00241	-.00137	-.01459	.48399
20.070	.501	.52944	.20494	.56762	.01085	6.62887	.00318	.00146	-.00030	-.01508	.48077
20.070	.600	.52031	.20162	.55790	.01086	6.61909	.00320	.00145	-.00030	-.01401	.47331
20.070	.698	.52435	.20514	.56222	.01090	6.60934	-.00269	.00136	.00044	-.01488	.47686
20.070	.800	.51717	.20185	.55503	.01215	6.59954	-.00559	.00153	.00072	-.01614	.47448
20.070	.900	.51019	.19932	.54761	.01217	6.58976	.00031	.00109	.00256	-.01407	.46877
20.070	1.000	.50984	.19919	.54723	.01216	6.57998	.00331	.00221	.00178	-.01608	.46835
20.070	1.501	.49932	.19543	.53607	.01225	6.53087	.00037	.00151	.00242	-.01388	.46271
GRADIENT	-.09576	-.02827	-.09965	.00630	.17407	-.00601	-.00117	.00125	-.00099	-.05875	

DATE OF NOV 72

## TABULATED SOURCE DATA - MSC/LTV MAI

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LTV LSWT S-081 BIWIVIC1 (BELT HOPING)

(RD0004) (07 NOV 72)

## REFERENCE DATA

## PARAMETRIC DATA

SREF = 7.8875 80.FT. XMRP = 75.7500 INCHES  
 LREF = 2.9400 FEET YMRP = .0000 INCHES  
 BREF = 3.8780 FEET ZMRP = 14.1100 INCHES  
 SCALE = .0000

ELVN-R = -10.000 ELVN-L = -10.000  
 ELEVON = -10.000

RUN NO. 46/0 RN/L = .44 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA	HTE/B	CL	CD	CN	CA	Q(PSF)	CY	CBL	CYN	CAB	CLM
-4.000	.199	-.32635	.06477	-.33007	.04185	6.41856	.09182	-.00121	-.03550	-.01176	-.16910
-4.000	.249	-.31271	.06425	-.31643	.04229	6.33993	.09361	-.00173	-.03619	-.01265	-.16380
-4.000	.299	-.29420	.06328	-.29790	.04260	6.31999	.09611	-.00220	-.03644	-.01213	-.15401
-4.000	.349	-.28410	.06320	-.28796	.04323	6.32503	.09292	-.00315	-.03535	-.01148	-.14746
-4.000	.399	-.28761	.06392	-.29136	.04370	6.35856	.09851	-.00475	-.03441	-.01195	-.15149
-4.000	.448	-.26939	.06225	-.27308	.04331	6.41810	.09455	-.00418	-.03372	-.00970	-.13986
-4.000	.501	-.26614	.06152	-.26379	.04280	6.49860	.09332	-.00559	-.03263	-.00892	-.13948
-4.000	.600	-.26642	.06083	-.27002	.04210	6.60751	.08885	-.00547	-.03176	-.01171	-.14028
-4.000	.698	-.26568	.05943	-.26918	.04075	6.62901	.08261	-.00717	-.03183	-.01024	-.14048
-4.000	.800	-.26379	.05935	-.26728	.04080	6.62043	.08273	-.00626	-.03182	-.00944	-.14024
-4.000	.900	-.27003	.05984	-.27355	.04086	6.61065	.08580	-.00631	-.03220	-.00760	-.14308
-4.000	1.000	-.27167	.05874	-.27511	.03965	6.60087	.08297	-.00523	-.03407	-.00896	-.14617
-4.000	1.498	-.27049	.05517	-.27368	.03617	6.55198	.08351	-.00667	-.03441	-.01025	-.14633
GRADIENT		.03313	-.00758	.03358	-.00526	.23513	-.01243	-.00408	.00193	.00245	.01219

RUN NO. 47/0 RN/L = .43 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA	HTE/B	CL	CD	CN	CA	Q(PSF)	CY	CBL	CYN	CAB	CLM
-2.050	.163	-.27732	.06332	-.27940	.05336	6.44409	.00473	.00335	-.00033	-.01498	-.11979
-2.050	.199	-.24867	.06151	-.25072	.05258	6.39350	-.00149	.00303	-.00041	-.01432	-.10641
-2.050	.249	-.23397	.06145	-.23601	.05305	6.34438	-.00160	.00354	-.00039	-.01487	-.10131
-2.050	.299	-.22559	.06140	-.22745	.05330	6.31999	.00138	.00300	.00002	-.01196	-.09942
-2.050	.349	-.21154	.05947	-.21353	.05187	6.33475	.00134	.00300	.00002	-.01326	-.09042
-2.050	.399	-.21138	.06046	-.21341	.05286	6.37605	.00130	.00153	.00075	-.01242	-.09123
-2.050	.448	-.20551	.05969	-.20752	.05230	6.44531	.00126	.00105	.00073	-.01100	-.08775
-2.050	.501	-.19850	.05881	-.20028	.05168	6.52581	.00122	.00006	.00219	-.01327	-.08399
-2.050	.600	-.20174	.05703	-.20365	.04978	6.61139	.00115	-.00087	.00214	-.01147	-.08908
-2.050	.698	-.20122	.05689	-.20312	.04965	6.62870	-.00178	-.00080	.00173	-.01099	-.08886
-2.050	.800	-.20155	.05572	-.20341	.04848	6.61870	-.00472	-.00076	.00206	-.01105	-.08876
-2.050	.900	-.20323	.05461	-.20506	.04731	6.60892	-.00772	-.00022	.00094	-.00998	-.09244
-2.050	1.000	-.20574	.05474	-.20756	.04735	6.59914	-.00181	-.00031	.00027	-.01120	-.09255
-2.050	1.501	-.21218	.05409	-.21398	.04646	6.55003	-.00485	-.00072	-.00013	-.00839	-.09883
GRADIENT		.03268	-.00743	.03293	-.00626	.22008	-.00609	-.00377	.00056	.00445	.00829

DATE OF NOV 72

## TABULATED SOURCE DATA - MSC/LTV MA1

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LTV LSHT S-081 BIWIVI61 (BELT MOVING)

(RD0004) (07 NOV 72)

## REFERENCE DATA

BREP = 7,6875 SQ.FT. XMRP = 75.7500 INCHES  
 LREP = 2,9400 FEET YMRP = .0000 INCHES  
 BREP = 3,6780 FEET ZMRP = 14.1100 INCHES  
 SCALE = .0000

## PARAMETRIC DATA

ELVN-R = -10.000 ELVN-L = -10.000  
 ELEVON = -10.000

RUN NO. 48/0 RN/L = .43 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA	HTE/B	CL	CD	CN	CA	Q(PSF)	CY	CBL	CYN	CAB	CLM
.000	.149	-.17526	.05346	-.17526	.05346	6.43804	-.00145	.00454	-.00055	-.01151	-.04664
.000	.199	-.16315	.05410	-.16315	.05410	6.37202	.00140	.00404	-.00088	-.01185	-.04629
.000	.249	-.14745	.05322	-.14745	.05322	6.32802	-.00173	.00413	-.00053	-.01038	-.03856
.000	.299	-.14659	.05201	-.14659	.05201	6.31999	-.00181	.00269	.00025	-.01180	-.04046
.000	.349	-.13317	.05185	-.13317	.05185	6.34497	-.00190	.00125	.00027	-.01124	-.03456
.000	.399	-.13168	.05143	-.13168	.05143	6.39693	-.00189	.00124	.00026	.00945	-.03291
.000	.446	-.12895	.05082	-.12895	.05082	6.47393	.00111	.00070	.00068	-.01150	-.03229
.000	.501	-.12744	.05022	-.12744	.05022	6.55443	.00108	.00023	.00142	-.00999	-.03280
.000	.600	-.12865	.04978	-.12865	.04978	6.61548	-.00484	-.00057	.00135	-.01040	-.03471
.000	.698	-.13080	.04846	-.13080	.04846	6.62688	-.00780	-.00098	.00094	-.00980	-.03707
.000	.800	-.12889	.04727	-.12889	.04727	6.61688	-.00781	-.00053	.00094	-.00940	-.03602
.000	.900	-.13122	.04733	-.13122	.04733	6.60710	-.00782	-.00008	.00020	-.00764	-.03784
.000	1.000	-.13606	.04739	-.13606	.04739	6.59733	-.00194	-.00065	-.00045	-.00976	-.04096
.000	1.501	-.14071	.04651	-.14071	.04651	6.54821	-.00499	-.00154	-.00085	-.00823	-.04530
GRADIENT		.01698	-.00629	.01698	-.00629	.21925	-.00495	-.00449	-.00010	.00275	-.00134

RUN NO. 49/0 RN/L = .43 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA	HTE/B	CL	CD	CN	CA	Q(PSF)	CY	CBL	CYN	CAB	CLM
1.970	.133	-.10606	.04990	-.10428	.05351	6.43530	-.00763	.00377	-.00132	-.01294	.00623
1.970	.149	-.08737	.04947	-.08562	.05244	6.41275	-.00169	.00320	-.00141	-.01277	.01558
1.970	.199	-.07164	.04924	-.06990	.05167	6.35632	-.00180	.00420	-.00069	-.01146	.01956
1.970	.249	-.06499	.04849	-.06328	.05070	6.31999	.00117	.00369	-.00023	-.01197	.01988
1.970	.299	-.06503	.04846	-.06332	.05066	6.32728	-.00500	.00380	-.00032	-.01255	.01844
1.970	.349	-.06116	.04834	-.05946	.05041	6.36261	.00106	.00224	-.00016	-.01050	.01857
1.970	.399	-.05575	.04805	-.05407	.04994	6.42441	-.00199	.00182	.00019	-.01196	.02203
1.970	.446	-.05389	.04629	-.05227	.04611	6.49826	-.00202	.00039	.00025	-.01228	.02229
1.970	.501	-.05559	.04563	-.05399	.04752	6.58191	-.00203	-.00053	.00029	-.01156	.01974
1.970	.600	-.06119	.04518	-.05960	.04726	6.61941	-.00496	-.00047	.00062	-.01413	.01454
1.970	.698	-.05990	.04519	-.05851	.04722	6.62514	-.00789	-.00085	.00096	-.00954	.01652
1.970	.800	-.06624	.04498	-.06665	.04730	6.61514	-.00791	-.00087	.00097	-.01101	.00969
1.970	.900	-.07071	.04496	-.06913	.04737	6.60536	-.01087	.00002	-.00095	-.00914	.00748
1.970	1.000	-.06967	.04506	-.06808	.04742	6.59558	-.00498	.00037	-.00089	-.01089	.00772
1.970	1.501	-.07365	.04275	-.07214	.04525	6.54647	-.00211	-.00111	-.00191	-.01009	.00447
GRADIENT		.00617	-.00528	.00598	-.00549	.21065	-.00287	-.00416	-.00029	.00208	-.01014

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## TABULATED SOURCE DATA - MSC/LTV MA1

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LTV LSWT S-061 81W1V1G1 (BELT MOVING)

(R00004) (07 NOV 72)

## REFERENCE DATA

## PARAMETRIC DATA

BREF = 7.8675 SQ.FT. XMRP = 75.7500 INCHES  
 LREF = 2.5400 FEET YMRP = .0000 INCHES  
 BREF = 3.6760 FEET ZMRP = 14.1100 INCHES  
 SCALE = .0000

ELVN-R = -10.000 ELVN-L = -10.000  
 ELEVON = -10.000

RUN NO. 50/0 RN/L = .43 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA	HTE/B	CL	CD	CN	CA	Q(PSF)	CY	CBL	CYN	CAB	CLM
3.930	.117	-.00414	.04435	-.00109	.04453	6.43274	-.00175	.00427	-.00010	-.01086	.07602
3.930	.149	-.00476	.04598	-.00160	.04620	6.38763	.00120	.00473	.00029	-.01232	.06939
3.930	.199	.00227	.04552	.00538	.04526	6.34073	.01342	.00453	.00048	-.01235	.06966
3.930	.249	.00215	.04441	.00519	.04416	6.31999	-.00201	.00388	.00073	-.01049	.06731
3.930	.299	.00086	.04422	.00389	.04406	6.33703	.00712	.00176	.00063	-.00844	.06461
3.930	.349	.01164	.04339	.01459	.04249	6.38015	.00703	.00180	.00139	-.01021	.06920
3.930	.399	.01278	.04300	.01570	.04202	6.45169	.00992	.00030	.00115	-.00997	.07004
3.930	.447	.00782	.04219	.01069	.04155	6.52694	.00682	.00037	.00147	-.01124	.06474
3.930	.501	.01012	.04186	.01296	.04107	6.60130	.00969	.00029	.00112	-.00963	.06623
3.930	.600	.00526	.04268	.00817	.04222	6.62330	.00083	.00002	.00140	-.00930	.06223
3.930	.698	-.00163	.04095	.00117	.04097	6.62341	-.00210	.00003	.00099	-.01039	.05717
3.930	.800	-.00401	.04086	-.00120	.04104	6.61341	-.00508	-.00040	.00062	-.01137	.05504
3.930	.900	-.00514	.04083	-.00233	.04108	6.60363	.00081	-.00010	-.00006	-.01051	.05447
3.930	1.000	-.00628	.04080	-.00347	.04114	6.59385	.00083	-.00010	-.00006	-.00929	.05433
3.930	1.501	-.01584	.03922	-.01311	.04021	6.54474	.00075	-.00156	-.00069	-.00703	.04514
GRADIENT		-.01198	-.00473	-.01227	-.00390	.20933	-.00483	-.00446	-.00079	.00229	-.02064

RUN NO. 51/0 RN/L = .43 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA	HTE/B	CL	CD	CN	CA	Q(PSF)	CY	CBL	CYN	CAB	CLM
6.000	.102	.08496	.05251	.08998	.04335	6.42886	.00104	.00428	-.00060	-.01246	.13579
6.000	.149	.09296	.04989	.09767	.03990	6.36832	.00096	.00476	-.00064	-.01089	.13500
6.000	.199	.10565	.05023	.11032	.03892	6.32433	-.00219	.00441	-.00025	-.01312	.14076
6.000	.248	.09218	.04886	.09678	.03896	6.31999	.00699	.00284	.00044	-.01178	.12861
6.000	.299	.09522	.05033	.09996	.04010	6.34911	.00693	.00236	.00049	-.01149	.13030
6.000	.349	.09180	.05094	.09662	.04107	6.40340	.00688	.00242	.00125	-.01126	.12666
6.000	.399	.09216	.04793	.09666	.03804	6.48040	.00674	.00099	.00139	-.01013	.12542
6.000	.448	.08629	.04814	.09085	.03886	6.55670	.00962	.00043	.00110	-.00862	.12106
6.000	.501	.08325	.04755	.08777	.03859	6.60541	.00657	-.00002	.00074	-.00943	.11750
6.000	.600	.08299	.04740	.08749	.03847	6.62741	.00667	.00008	.00065	-.01021	.11755
6.000	.698	.07836	.04697	.08284	.03852	6.62158	-.00228	-.00036	.00029	-.00900	.11367
6.000	.800	.07368	.04654	.07834	.03856	6.61158	.00067	-.00038	.00071	-.00880	.11120
6.000	.900	.07048	.04623	.07492	.03861	6.60180	.00069	.00044	-.00012	-.00977	.10849
6.000	1.000	.07174	.04642	.07620	.03867	6.59203	.00069	.00044	-.00012	-.01236	.10931
6.000	1.501	.06863	.04640	.07330	.03896	6.54292	.00365	-.00056	-.00034	-.00723	.10859
GRADIENT		-.02361	-.00411	-.02391	-.00162	.20673	-.00176	-.00381	-.00020	.00277	-.02488

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TABULATED SOURCE DATA - MSC/LTV MAI

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LTV LWT S-001 BIWIVIGI (BELT MOVING)

(R00004) (07 NOV 72)

## REFERENCE DATA

BREF = 7.8875 SQ.FT. XMRP = 75.7500 INCHES  
 LREF = 2.5400 FEET YMRP = .0000 INCHES  
 BREF = 3.8780 FEET ZMRP = 14.1100 INCHES  
 SCALE = .0000

## PARAMETRIC DATA

ELVN-R = -10.000 ELVN-L = -10.000  
 ELEVON = -10.000

RUN NO. 52/0 RN/L = .43 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA	HTE/B	CL	CD	CN	CA	Q(PSF)	CY	CBL	CYN	CAB	CLM
7.930	.086	.16167	.06005	.16842	.03439	6.42688	.00984	.00272	-.00078	-.01360	.20024
7.930	.099	.17784	.05828	.18398	.03322	6.40755	.00986	.00282	-.00002	-.01145	.19467
7.930	.149	.17754	.05861	.18393	.03356	6.35310	.00680	.00293	.00031	-.01203	.18961
7.930	.189	.17105	.05790	.17740	.03376	6.31999	.00682	.00293	.00032	-.01221	.18519
7.930	.249	.16729	.05601	.17342	.03240	6.32930	.00988	.00254	.00159	-.01021	.17924
7.930	.299	.16619	.05570	.17229	.03225	6.36625	.00670	.00158	.00130	-.01144	.17635
7.930	.349	.16334	.05497	.16937	.03192	6.43005	.01271	.00157	.00213	-.00980	.17347
7.930	.399	.15694	.05241	.16268	.03026	6.50706	.01551	.00005	.00199	-.01041	.16653
7.930	.448	.15490	.05305	.16073	.03118	6.58406	.01237	.00051	.00149	-.00876	.16631
7.930	.501	.15316	.05270	.15896	.03107	6.60921	.01231	-.00029	.00235	-.01007	.16502
7.930	.600	.14788	.05315	.15379	.03224	6.62945	.00636	-.00084	.00086	-.01181	.16120
7.930	.698	.14591	.05167	.15165	.03105	6.61989	.00050	-.00065	.00150	-.00904	.15944
7.930	.800	.14268	.05125	.14838	.03108	6.60989	.00346	-.00031	.00112	-.01036	.15726
7.930	.900	.13577	.05160	.14159	.03237	6.60011	.00643	-.00041	.00080	-.01013	.15284
7.930	1.000	.13497	.05026	.14061	.03116	6.59033	.00643	-.00042	.00080	-.00945	.15174
7.930	1.501	.13011	.04983	.13574	.03141	6.54122	.00642	-.00156	-.00052	-.00844	.14820
GRADIENT	-.03990	-.00727	-.04052	-.00170	.19979	-.00391	-.00352	-.00021	.00250	-.03665	

RUN NO. 53/0 RN/L = .43 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA	HTE/B	CL	CD	CN	CA	Q(PSF)	CY	CBL	CYN	CAB	CLM
11.900	.054	.44636	.10846	.45913	.01411	6.42198	.00589	-.00008	-.00155	-.01049	.36736
11.900	.099	.41112	.10111	.42313	.01418	6.36605	.00914	.00129	-.00144	-.00629	.34282
11.900	.149	.39018	.09676	.40174	.01424	6.32205	.00623	.00233	-.00133	-.00851	.32996
11.900	.199	.37321	.09452	.38468	.01555	6.32120	.00626	.00201	-.00046	-.01066	.31821
11.900	.248	.35845	.09132	.36957	.01546	6.35054	.00626	.00198	-.00046	-.01052	.30824
11.900	.299	.35527	.09052	.36630	.01533	6.40738	.00618	.00104	-.00025	-.01064	.30551
11.900	.349	.34059	.08723	.35126	.01514	6.48438	.00613	.00102	-.00024	-.01202	.29491
11.900	.399	.33917	.08547	.34951	.01371	6.56138	.00602	.00010	-.00004	-.00982	.29302
11.900	.448	.32842	.08566	.33903	.01611	6.60547	.01189	-.00013	-.00066	-.00820	.28597
11.900	.501	.32206	.08431	.33252	.01610	6.61697	.00693	-.00002	-.00035	-.01008	.28038
11.900	.600	.32055	.08397	.33098	.01608	6.62600	.00690	-.00091	-.00015	-.00920	.28024
11.900	.698	.31205	.08092	.32203	.01485	6.61644	.00599	-.00037	.00006	-.00984	.27291
11.900	.800	.30317	.08036	.31523	.01613	6.60644	-.00282	-.00046	-.00116	-.00901	.26822
11.900	.900	.30136	.07999	.31138	.01614	6.59666	.00013	-.00043	-.00075	-.01086	.26730
11.900	1.000	.29953	.07961	.30951	.01615	6.58689	.00313	.00019	.00027	-.00938	.26637
11.900	1.501	.29430	.08126	.30473	.01864	6.53777	.00311	-.00161	.00068	-.00959	.26344
GRADIENT	-.09357	-.01706	-.09507	.00259	.19417	-.00476	-.00215	.00106	-.00019	-.06491	

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## TABULATED SOURCE DATA - MSC/LTV MA1

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LTV LSWT S-061 BIWIVIGI (BELT MOVING)

(R00004) (07 NOV 72)

## REFERENCE DATA

BREP = 7.8675 SQ.FT. XMRP = 75.7500 INCHES  
 LREP = 2.8400 FEET YMRP = .0000 INCHES  
 BREP = 3.6780 FEET ZMRP = 14.1100 INCHES  
 SCALE = .0000

## PARAMETRIC DATA

ELVN-R = -10.000 ELVN-L = -10.000  
 ELEVON = -10.000

RUN NO. 54/0 RN/L = .43 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA	HTE/B	CL	CD	CN	CA	Q(PSF)	CY	CBL	CYN	CAB	CLM
16.000	.020	.71639	.19099	.74129	-.01382	6.41889	.01086	-.00284	-.00064	-.00698	.52956
16.000	.049	.67073	.18039	.69447	-.01143	6.37853	.00811	-.00229	-.00047	-.00816	.50571
16.000	.099	.61610	.16992	.65907	-.00644	6.33453	.00853	-.00028	-.00029	-.01020	.47682
16.000	.149	.57952	.16207	.60175	-.00391	6.31999	.01178	-.00025	.00013	-.01035	.45776
16.000	.199	.55598	.15801	.57799	-.00132	6.34090	.01183	.00019	.00000	-.00954	.44381
16.000	.249	.54660	.15394	.56786	-.00265	6.38713	.01791	.00100	-.00016	-.00963	.43742
16.000	.299	.52463	.15033	.54575	-.00005	6.46254	.01769	-.00036	.00024	-.00957	.42259
16.000	.349	.52597	.14810	.54642	-.00258	6.53954	.00853	-.00009	-.00113	-.00969	.42254
16.000	.399	.50902	.14588	.52951	-.00003	6.60235	.01140	-.00091	-.00044	-.00937	.41054
16.000	.448	.50599	.14501	.52636	-.00004	6.61335	.01136	-.00135	-.00102	-.00848	.40839
16.000	.501	.50029	.14468	.52079	.00120	6.62485	.01136	-.00155	-.00102	-.01022	.40540
16.000	.600	.49185	.14096	.51166	-.00004	6.62249	.00841	-.00230	-.00045	-.01003	.39916
16.000	.698	.48882	.14140	.50886	.00121	6.61294	.00844	-.00187	-.00058	-.01055	.39707
16.000	.800	.48432	.13879	.50362	-.00005	6.60294	.00555	-.00130	-.00041	-.01066	.39414
16.000	.900	.47906	.13859	.49870	.00120	6.59316	.00557	-.00130	-.00041	-.00683	.39073
16.000	1.000	.47642	.13782	.49595	.00119	6.58338	.00857	-.00104	.00070	-.01075	.38932
16.000	1.501	.46981	.13594	.48908	.00120	6.53427	.00861	-.00239	.00111	-.00923	.38533
GRADIENT	-13747	-03140	-14080	.00769	.18622	-.00372	-.00086	.00072	-.00044	-.08543	

RUN NO. 55/0 RN/L = .43 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA	HTE/B	CL	CD	CN	CA	Q(PSF)	CY	CBL	CYN	CAB	CLM
20.070	.075	.80812	.28309	.85620	-.01136	6.32494	.00490	.00195	.00091	-.01186	.61242
20.070	.099	.79365	.27916	.84125	-.01008	6.31999	.00492	.00015	.00158	-.01304	.60600
20.070	.149	.73946	.26481	.78543	-.00497	6.33252	.00823	-.00012	-.00034	-.01341	.57787
20.070	.199	.71760	.25818	.76263	-.00370	6.37205	.00222	.00154	-.00024	-.01389	.56604
20.070	.249	.69019	.25093	.73439	-.00110	6.43908	.00526	.00073	.00050	-.01333	.54767
20.070	.299	.68819	.24880	.73176	-.00241	6.51608	.00231	.00325	-.00089	-.01355	.54748
20.070	.349	.67323	.24470	.71633	-.00113	6.59308	.00521	.00150	-.00139	-.01399	.53778
20.070	.399	.66277	.24088	.70519	-.00113	6.61000	.00811	.00003	-.00118	-.01551	.53024
20.070	.448	.65501	.24048	.70058	.00011	6.62100	.00227	.00079	-.00077	-.01447	.52846
20.070	.501	.65873	.23940	.70088	-.00114	6.62887	.00518	.00062	-.00105	-.01556	.52785
20.070	.600	.65638	.23857	.69840	-.00111	6.61909	-.00072	-.00032	.00000	-.01487	.52619
20.070	.698	.65199	.23694	.69371	-.00114	6.60954	-.00068	-.00033	.00000	-.01506	.52499
20.070	.800	.64374	.23526	.68539	.00011	6.59954	-.00653	.00042	.00043	-.01457	.51978
20.070	.900	.63643	.23398	.67627	.00134	6.58976	-.00351	.00119	.00136	-.01510	.51612
20.070	1.000	.63253	.23112	.67343	.00006	6.57998	-.00052	.00170	.00161	-.01460	.51290
20.070	1.501	.63062	.23044	.67141	.00008	6.53087	-.00058	-.00003	.00228	-.01198	.51185
GRADIENT	-10836	-03305	-11312	.00613	.17407	-.00720	-.00058	.00148	-.00035	-.06358	

DATE OF NOV 72

## TABULATED SOURCE DATA - MSC/LTV MA1

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LTV LSWT S-061 BIWIVIGI (BELT MOVING)

(R00005) (07 NOV 72)

## REFERENCE DATA

BREF = 7.6675 SQ.FT. XMRP = 75.7500 INCHES  
 LREF = 2.9400 FEET YMRP = .0000 INCHES  
 BREF = 3.6760 FEET ZMRP = 14.1100 INCHES  
 SCALE = .0000

## PARAMETRIC DATA

ELVN-R = -2.000 ELVN-L = -2.000  
 ELEVON = -2.000

RUN NO. 57/0 RN/L = .44 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA	HTE/B	CL	CD	CN	CA	Q(PSF)	CY	CBL	CYN	CAB	CLM
-4.000	.199	-.21696	.06173	-.22273	.04630	6.41856	.00993	.00271	-.00085	-.01639	-.13228
-4.000	.249	-.18624	.05862	-.18987	.04548	6.35993	.00989	.00276	-.00085	-.01660	-.11378
-4.000	.299	-.17547	.05820	-.17910	.04582	6.31999	.00681	.00281	-.00050	-.01609	-.10946
-4.000	.349	-.17057	.05652	-.17410	.04449	6.32503	.00982	.00129	-.00017	-.01452	-.10681
-4.000	.399	-.16250	.05576	-.16599	.04429	6.35856	.00970	-.00018	.00051	-.01580	-.10258
-4.000	.448	-.15626	.05360	-.15961	.04257	6.41810	.01266	.00019	.00094	-.01456	-.09820
-4.000	.501	-.15677	.05442	-.16019	.04336	6.49860	.00947	-.00024	.00125	-.01416	-.10084
-4.000	.600	-.14949	.05321	-.15284	.04266	6.60751	.00636	-.00116	.00224	-.01315	-.09520
-4.000	.698	-.15029	.05189	-.15354	.04128	6.62901	.00338	-.00159	.00254	-.01269	-.09620
-4.000	.800	-.15756	.05246	-.16083	.04134	6.62043	.00043	-.00152	.00214	-.01390	-.10252
-4.000	.900	-.16020	.05143	-.16340	.04013	6.61065	.00339	-.00060	.00113	-.01271	-.10465
-4.000	1.000	-.15813	.05135	-.16133	.04020	6.60087	.00043	-.00051	.00073	-.01239	-.10348
-4.000	1.498	-.16296	.05203	-.16619	.04054	6.55198	-.00261	-.00183	.00025	-.01274	-.10850
GRADIENT		.02486	-.00691	.02528	-.00516	.23513	-.01137	-.00353	.00117	.00337	.00800

RUN NO. 58/0 RN/L = .43 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA	HTE/B	CL	CD	CN	CA	Q(PSF)	CY	CBL	CYN	CAB	CLM
-2.050	.163	-.14064	.04860	-.14229	.04354	6.44409	.00678	.00238	-.00138	-.01411	-.07048
-2.050	.199	-.12396	.05103	-.12570	.04656	6.39350	.00065	.00201	.00005	-.01438	-.06359
-2.050	.249	-.10821	.04955	-.10991	.04565	6.34438	.00671	.00241	-.00062	-.01561	-.05697
-2.050	.299	-.10155	.04953	-.10326	.04586	6.31999	.00976	.00184	.00056	-.01514	-.05563
-2.050	.349	-.09406	.05049	-.09580	.04709	6.33475	.00662	.00192	.00014	-.01415	-.05182
-2.050	.399	-.08517	.04860	-.08685	.04552	6.37605	.00653	.00090	.00165	-.01302	-.04782
-2.050	.448	-.08415	.04808	-.08582	.04503	6.44531	.00340	.00006	.00043	-.01490	-.04593
-2.050	.501	-.08204	.04619	-.08364	.04322	6.52581	.00631	-.00097	.00156	-.01463	-.04580
-2.050	.600	-.08109	.04561	-.08267	.04268	6.61139	.00327	-.00092	.00167	-.01330	-.04655
-2.050	.698	-.08549	.04692	-.08711	.04385	6.62870	.00033	-.00133	.00219	-.01137	-.04931
-2.050	.800	-.09155	.04469	-.09309	.04139	6.61870	-.00262	-.00125	.00105	-.01304	-.05400
-2.050	.900	-.08814	.04568	-.08973	.04270	6.60892	.00325	-.00136	.00113	-.01052	-.05167
-2.050	1.000	-.09180	.04607	-.09339	.04276	6.59914	.00324	-.00086	-.00033	-.01378	-.05493
-2.050	1.501	-.09262	.04390	-.09413	.04056	6.55003	.00025	-.00176	-.00002	-.01083	-.05611
GRADIENT		.02197	-.00502	.02213	-.00423	.22006	-.00529	-.00358	.00046	.00318	.00431

DATE OF NOV 92

## TABULATED SOURCE DATA - MSC/LTV MAI

PAGE 20

LTV L8WT S-001 B1W1W1C1 (BELT MOVING)

(R00005) (07 NOV 92)

## REFERENCE DATA

BREF = 7.6875 SQ.FT. XMRP = 75.7500 INCHES  
 LREF = 2.5400 FEET YMRP = .0000 INCHES  
 BREF = 3.6780 FEET ZMRP = 14.1100 INCHES  
 SCALE = .0000

## PARAMETRIC DATA

ELVN-R = -2.000 ELVN-L = -2.000  
 ELEVON = -2.000

RUN NO. 56/0 RN/L = .44 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA	HTE/B	CL	CD	CN	CA	Q(PSF)	CY	CBL	CYN	CAB	CLM
.000	.149	-.05963	.05138	-.05963	.05138	6.43804	.00668	.00248	-.00071	-.01256	-.01142
.000	.199	-.03651	.05328	-.03651	.05328	6.37202	.01580	.00235	.00055	-.01465	-.00222
.000	.249	-.03332	.05501	-.03332	.05501	6.32802	.01585	.00189	.00057	-.01412	-.00274
.000	.299	-.02132	.05249	-.02132	.05249	6.31999	.01271	.00147	.00092	-.01391	.00280
.000	.349	-.01520	.05362	-.01520	.05362	6.34497	.01261	.00004	.00170	-.01453	.00645
.000	.399	-.01398	.05189	-.01398	.05189	6.39693	.01251	.00098	.00168	-.01360	.00348
.000	.448	-.01303	.05257	-.01303	.05257	6.47393	.01834	-.00053	.00251	-.01251	.00519
.000	.501	-.01723	.05066	-.01723	.05066	6.55443	.01513	-.00048	.00207	-.01277	.00201
.000	.600	-.01707	.04895	-.01707	.04895	6.61548	.01497	-.00140	.00280	-.01336	.00179
.000	.698	-.02642	.05014	-.02642	.05014	6.62688	.01199	-.00227	.00313	-.01222	-.00506
.000	.800	-.02647	.04895	-.02647	.04895	6.61688	.00612	-.00125	.00158	-.01248	-.00528
.000	.900	-.02772	.04903	-.02772	.04903	6.60710	.00613	-.00126	.00158	-.01260	-.00685
.000	1.000	-.03128	.05162	-.03128	.05162	6.59733	.00906	-.00131	-.00021	-.01253	-.00931
.000	1.501	-.03269	.04821	-.03269	.04821	6.54821	.00612	-.00221	.00012	-.01071	-.01068
GRADIENT		.00204	-.00399	.00204	-.00399	.21925	-.00644	-.00365	-.00011	.00224	-.00833

RUN NO. 59/0 RN/L = .43 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA	HTE/B	CL	CD	CN	CA	Q(PSF)	CY	CBL	CYN	CAB	CLM
1.970	.133	.04113	.03868	.04244	.03725	6.43530	.00042	.00264	-.00090	-.01271	.05860
1.970	.149	.03997	.03878	.04127	.03739	6.41275	.00345	.00260	-.00048	-.01406	.05629
1.970	.199	.05338	.03962	.05471	.03776	6.35632	.00648	.00306	-.00007	-.01253	.06158
1.970	.249	.06190	.04150	.06329	.03935	6.31999	.00027	.00272	-.0012	-.01410	.06418
1.970	.299	.06052	.04143	.06191	.03933	6.32728	.00945	.00066	.00124	-.01320	.06158
1.970	.349	.06001	.04120	.06139	.03911	6.36261	.01246	.00201	.00083	-.01396	.05846
1.970	.399	.06352	.03974	.06684	.03747	6.42441	.00924	.00018	.00124	-.01442	.06246
1.970	.446	.06601	.03935	.06732	.03705	6.49826	.00611	-.00070	.00085	-.01277	.06333
1.970	.501	.06145	.04125	.06283	.03911	6.58191	.00900	-.00027	.00124	-.01484	.05872
1.970	.600	.05646	.03962	.05779	.03766	6.61941	.00595	-.00161	.00088	-.01346	.05465
1.970	.698	.05524	.03956	.05656	.03763	6.62514	.00007	-.00150	.00000	-.01163	.05593
1.970	.800	.05066	.03820	.05194	.03644	6.61514	-.00286	-.00145	.00113	-.01491	.05026
1.970	.900	.04841	.03816	.04969	.03647	6.60536	.00009	-.00063	.00003	-.01311	.04857
1.970	1.000	.04845	.03948	.04978	.03780	6.59556	.00301	-.00161	-.00025	-.01224	.04866
1.970	1.501	.04053	.03823	.04182	.03681	6.54647	.00302	-.00167	-.00099	-.01318	.04209
GRADIENT		-.00736	-.00147	-.00761	-.00121	.21065	-.00364	-.00366	-.00039	.00041	-.01508

DATE OF NOV 72

## TABULATED SOURCE DATA - MSC/LTV MAI

PAGE 29

LTV LWT S-061 BIWIVIGI. (BELT MOVING)

(R00005) (07 NOV 72)

## REFERENCE DATA

## PARAMETRIC DATA

BREF = 7.8875 SQ.FT. XMRP = 75.7500 INCHES  
 LREF = 2.9400 FEET YMRP = .0000 INCHES  
 BREF = 3.8780 FEET ZMRP = 14.1100 INCHES  
 SCALE = .0000

ELVN-R = -2.000 ELVN-L = -2.000  
 ELEVON = -2.000

RUN NO. 60/0 RN/L = .43 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA	HTE/B	CL	CD	CN	CA	Q(PSF)	CY	CBL	CYN	CAB	CLM
3.930	.117	.13751	.05205	.14075	.04250	6.43274	.00029	.00422	-.00035	-.01094	.12574
3.930	.149	.13224	.05203	.13550	.04284	6.38763	-.00260	.00337	.00005	-.01159	.11951
3.930	.199	.13540	.05260	.13869	.04320	6.34073	-.00595	.00342	-.00036	-.01271	.11852
3.930	.249	.13434	.05400	.13773	.04467	6.31999	.00325	.00334	.00093	-.01233	.11518
3.930	.299	.14016	.05299	.14349	.04326	6.35703	.00622	.00086	.00077	-.01345	.11905
3.930	.349	.13786	.05386	.14122	.04428	6.38013	.00616	.00086	.00077	-.01201	.11639
3.930	.399	.13746	.05337	.14080	.04383	6.45169	.00304	-.00041	.00196	-.01217	.11532
3.930	.447	.13002	.05234	.13330	.04331	6.52694	.00598	-.00055	.00086	-.01386	.11020
3.930	.501	.12962	.05184	.13287	.04284	6.60130	.00587	-.00100	.00089	-.01201	.10829
3.930	.600	.12565	.05144	.12888	.04270	6.62330	.00000	-.00044	.00077	-.01160	.10504
3.930	.698	.12087	.05238	.12418	.04398	6.62341	-.00589	-.00079	.00072	-.01386	.10171
3.930	.800	.12120	.05120	.12442	.04278	6.61341	-.00589	-.00080	.00072	-.01388	.10255
3.930	.900	.11554	.05087	.11876	.04283	6.60363	-.00589	-.00040	-.00004	-.01309	.09849
3.930	1.000	.11454	.05087	.11776	.04290	6.59385	-.00297	-.00094	-.00033	-.01313	.09754
3.930	1.501	.10594	.05059	.10916	.04321	6.54474	.00292	-.00158	-.00095	-.01234	.09069
GRADIENT		-.02545	-.00204	-.02553	-.00029	.20933	-.00248	-.00396	-.00075	-.00082	-.02519

RUN NO. 61/0 RN/L = .43 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA	HTE/B	CL	CD	CN	CA	Q(PSF)	CY	CBL	CYN	CAB	CLM
6.000	.102	.24317	.05286	.24737	.02716	6.42886	-.00008	.00238	-.00030	-.01033	.19158
6.000	.149	.23558	.05364	.23990	.02873	6.36832	.00296	.00230	-.00063	-.01153	.18489
6.000	.199	.22462	.05665	.22931	.03286	6.32433	.00919	.00237	.00099	-.01311	.17759
6.000	.248	.22578	.05681	.23048	.03291	6.31999	.00917	.00284	.00094	-.01272	.17560
6.000	.299	.22092	.05749	.22572	.03409	6.34911	.00908	.00141	.00110	-.01216	.17157
6.000	.349	.21798	.05560	.22260	.03252	6.40340	.00593	.00054	.00154	-.01052	.16921
6.000	.399	.21764	.05648	.22236	.03343	6.48040	.00583	-.00038	.00162	-.01404	.16922
6.000	.448	.21034	.05534	.21497	.03305	6.55670	.00575	-.00076	.00240	-.01260	.16279
6.000	.501	.21006	.05380	.21454	.03155	6.60541	.00861	-.00139	.00138	-.00864	.16161
6.000	.600	.21042	.05501	.21501	.03272	6.62741	.00855	-.00228	.00148	-.01342	.16239
6.000	.698	.20243	.05421	.20698	.03275	6.62158	-.00022	-.00165	.00167	-.01382	.15635
6.000	.800	.19930	.05390	.20384	.03278	6.61158	.00569	-.00130	.00170	-.01379	.15482
6.000	.900	.19142	.05312	.19593	.03283	6.60180	-.00020	-.00091	.00010	-.01255	.14906
6.000	1.000	.19055	.05307	.19505	.03287	6.59203	-.00018	-.00046	.00004	-.01167	.14862
6.000	1.501	.18379	.05262	.18829	.03312	6.54292	-.00024	-.00201	-.00127	-.01329	.14417
GRADIENT		-.04154	-.00235	-.04156	.00201	.20673	-.00532	-.00347	-.00086	-.00121	-.03295

DATE OF NOV 72

## TABULATED SOURCE DATA - MSC/LTV MAI

PAGE 30

LTV LSWT S-061 B1W1V1G1 (BELT MOVING)

(R00005) (07 NOV 72 )

## REFERENCE DATA

## PARAMETRIC DATA

BREF = 7.6675 SQ.FT. XMRP = 75.7500 INCHES  
 LREF = 2.5400 FEET YMRP = .0000 INCHES  
 BREF = 3.6780 FEET ZMRP = 14.1100 INCHES  
 SCALE = .0000

ELVN-R = -2.000 ELVN-L = -2.000  
 ELEVON = -2.000

RUN NO. 62/0 RN/L = .43 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA	HTE/B	CL	CD	CN	CA	Q (PSF)	CY	CBL	CYN	CAB	CLM
7.930	.066	.35197	.06484	.35755	.01567	6.42688	.00560	.00166	-.00172	-.00853	.25920
7.930	.099	.34354	.06371	.34905	.01571	6.40755	.00864	.00025	-.00109	-.00826	.25407
7.930	.149	.32176	.06475	.32781	.01975	6.35310	.00272	.00281	-.00078	-.01213	.23693
7.930	.199	.31469	.06652	.32086	.02248	6.31999	.00274	.00188	-.00065	-.01183	.23576
7.930	.249	.31058	.06594	.31671	.02247	6.32930	.00575	-.00001	.00006	-.01248	.23245
7.930	.299	.30261	.06469	.30864	.02233	6.36625	.00580	.00206	.00130	-.01263	.22487
7.930	.349	.29470	.06468	.30081	.02341	6.43005	.00871	.00007	.00124	-.01266	.21969
7.930	.399	.29235	.06409	.29840	.02315	6.50706	.00857	-.00084	.00136	-.01140	.21732
7.930	.448	.28409	.06394	.29020	.02414	6.58406	.00847	-.00083	.00135	-.01145	.21143
7.930	.501	.28436	.06262	.29028	.02280	6.60921	.00842	-.00129	.00141	-.01019	.21153
7.930	.600	.28347	.06243	.28937	.02274	6.62945	.00543	-.00139	.00027	-.01127	.21044
7.930	.698	.27902	.06315	.28507	.02406	6.61989	-.00338	-.00199	.00137	-.01280	.20740
7.930	.800	.27269	.06101	.27850	.02282	6.60989	-.00042	-.00166	.00098	-.01299	.20265
7.930	.900	.26831	.06171	.27426	.02410	6.60011	.00250	-.00232	.00000	-.01241	.20008
7.930	1.000	.26640	.06146	.27233	.02413	6.59033	-.00040	-.00131	.00018	-.01350	.19903
7.930	1.501	.25668	.06029	.26255	.02431	6.34122	.00531	-.00246	-.00031	-.01154	.19161
GRADIENT	- .06158	- .00402	- .06154	.00451	.19979	- .00359	- .00341	.00055	- .00162	- .04486	

RUN NO. 63/0 RN/L = .43 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA	HTE/B	CL	CD	CN	CA	Q (PSF)	CY	CBL	CYN	CAB	CLM
11.900	.054	.60964	.13570	.62452	.00710	6.42198	.00766	-.00247	-.00127	-.01019	.42168
11.900	.099	.56490	.13020	.57961	.01094	6.36605	.00493	-.00116	-.00202	-.01249	.39902
11.900	.149	.52815	.12381	.54233	.01226	6.32205	.00512	-.00058	-.00138	-.01230	.37664
11.900	.199	.51138	.12157	.52546	.01352	6.32120	.01138	-.00006	-.00062	-.01311	.36723
11.900	.248	.49694	.11979	.51096	.01476	6.35054	.00830	-.00040	-.00019	-.01361	.35886
11.900	.298	.48305	.11673	.49674	.01463	6.40738	.00823	-.00072	.00065	-.01428	.34838
11.900	.349	.47626	.11511	.48976	.01445	6.48438	.00814	-.00116	.00074	-.01411	.34493
11.900	.399	.46482	.11254	.47804	.01429	6.56138	.01098	-.00174	.00052	-.01357	.33532
11.900	.448	.45580	.11181	.46906	.01544	6.60547	.01092	-.00188	-.00019	-.01411	.32998
11.900	.501	.45866	.11113	.47172	.01418	6.61697	.00205	-.00181	-.00070	-.01351	.33161
11.900	.600	.45691	.11073	.46992	.01415	6.62600	.00207	-.00136	-.00080	-.01295	.33050
11.900	.698	.44725	.10872	.46006	.01417	6.61644	.00208	-.00167	.00001	-.01188	.32324
11.900	.800	.41833	.10260	.43050	.01415	6.60644	-.00078	-.00174	-.00038	-.01470	.30474
11.900	.900	.44521	.11082	.45849	.01665	6.59866	-.00072	-.00123	-.00051	-.01373	.33068
11.900	1.000	.43897	.10703	.45161	.01422	6.56689	-.00377	-.00115	-.00017	-.01622	.31826
11.900	1.501	.42786	.10739	.44081	.01687	6.53777	-.00083	-.00220	-.00028	-.01185	.31080
GRADIENT	- .10340	- .01783	- .10485	.00387	.19417	- .00931	- .00064	.00051	- .00086	- .06521	

DATE OF NOV 72

## TABULATED SOURCE DATA - MSC/LTV MAI

PAGE 31

LTV LSWT S-081 B1W1V1G1 (BELT MOVING)

(R00005) (OF NOV 72)

## REFERENCE DATA

BREF = 7,8675 SQ.FT. XMRP = 75,7500 INCHES  
 LREF = 2,5400 FEET YMRP = .0000 INCHES  
 BREF = 3,6780 FEET ZMRP = 14,1100 INCHES  
 SCALE = .0000

## PARAMETRIC DATA

ELVN-R = -2,000 ELVN-L = -2,000  
 ELEVON = -2,000

RUN NO. 65/0 RN/L = .44 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA	HTE/B	CL	CD	CN	CA	Q(PSF)	CY	CBL	CYN	CAB	CLM
16.000	.020	.86631	.23939	.90066	-.00917	6.41689	.01576	-.00352	.00054	-.00636	.58059
16.000	.049	.80879	.23017	.84091	-.00163	6.37853	.01623	-.00356	.00052	-.00874	.55618
16.000	.099	.75107	.22160	.78306	.00604	6.33453	.01360	-.00345	.00083	-.01241	.53034
16.000	.149	.71373	.21353	.74493	.00856	6.31999	.01387	-.00164	.00028	-.01409	.51009
16.000	.199	.69023	.20807	.72084	.00979	6.34090	.01391	-.00211	.00041	-.01449	.49761
16.000	.249	.66599	.20351	.70013	.01098	6.38713	.01387	-.00255	.00054	-.01430	.48672
16.000	.299	.65498	.20037	.68484	.01211	6.46254	.01979	-.00196	.00123	-.01504	.47674
16.000	.349	.64044	.19608	.66968	.01199	6.53954	.01356	-.00295	.00067	-.01503	.46621
16.000	.399	.63102	.19324	.65984	.01186	6.60235	.01639	-.00307	.00036	-.01540	.45980
16.000	.448	.62851	.19380	.65758	.01309	6.61335	.01639	-.00262	.00022	-.01496	.45857
16.000	.501	.62520	.19283	.65413	.01307	6.62485	.01635	-.00306	.00035	-.01571	.45646
16.000	.600	.62015	.19007	.64852	.01180	6.62249	.01638	-.00263	.00023	-.01507	.45222
16.000	.698	.61507	.18994	.64360	.01308	6.61294	.01347	-.00249	.00053	-.01851	.44888
16.000	.800	.61148	.18894	.63988	.01311	6.60294	.01348	-.00294	.00067	-.01597	.44602
16.000	.900	.60571	.18730	.63388	.01312	6.59316	.01057	-.00325	.00110	-.01479	.44315
16.000	1.000	.60774	.18789	.63598	.01313	6.56338	.01356	-.00273	.00138	-.01588	.44447
16.000	1.501	.59384	.18531	.62192	.01447	6.53427	.01075	-.00240	.00085	-.01704	.43596
GRADIENT	-14645	-.03188	-.14957	.00971	.18622	-.00312	.00017	.00035	-.00474	-.08431	

RUN NO. 66/0 RN/L = .44 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA	HTE/B	CL	CD	CN	CA	Q(PSF)	CY	CBL	CYN	CAB	CLM
20.070	.075	.95302	.33535	1.01023	-.01199	6.32494	.00991	-.00151	-.00007	-.01266	.66925
20.070	.099	.93019	.32973	.98686	-.00943	6.31999	.01003	-.00153	-.00007	-.01327	.65730
20.070	.149	.87992	.31816	.95567	-.00305	6.35252	.00427	.00239	-.00083	-.01818	.63433
20.070	.199	.83675	.30788	.89160	.00210	6.37205	.00740	-.00002	-.00029	-.01912	.61164
20.070	.249	.81590	.30022	.86938	.00205	6.43908	.01033	-.00241	.00023	-.01899	.59965
20.070	.299	.79403	.29623	.84747	.00581	6.51608	.00732	-.00176	.00035	-.01953	.58829
20.070	.349	.78254	.29191	.83520	.00569	6.59308	.01034	.00203	.00015	-.01977	.57963
20.070	.399	.77835	.29040	.83074	.00571	6.61000	.01020	-.00105	-.00025	-.01934	.57640
20.070	.448	.77495	.28912	.82711	.00568	6.62100	.01021	-.00062	-.00042	-.02095	.57500
20.070	.501	.77287	.28638	.82490	.00569	6.62887	.00725	-.00089	.00003	-.02111	.57277
20.070	.600	.77546	.28800	.82723	.00445	6.61909	.00434	.00012	.00000	-.02046	.57361
20.070	.698	.77173	.28801	.82371	.00574	6.60954	.00428	-.00159	.00065	-.02092	.57067
20.070	.800	.76318	.28485	.81459	.00570	6.59954	.00143	-.00058	.00062	-.02057	.56690
20.070	.900	.75999	.28367	.81119	.00569	6.58976	-.00145	.00044	.00058	-.02153	.56597
20.070	1.000	.75992	.28365	.81111	.00570	6.57998	.00151	.00095	.00063	-.02161	.56436
20.070	1.501	.75576	.28215	.80669	.00571	6.53087	.00457	.00130	.00194	-.02080	.56303
GRADIENT	-.11343	-.03223	-.11760	.00864	.17407	-.00641	.00123	.00142	-.00443	-.06400	

DATE OF NOV 72

## TABULATED SOURCE DATA - MSC/LTV MAS

PAGE 32

LTV LSWT S-081 BIWIVIGI (BELT MOVING)

(RDO006) (07 NOV 72)

## REFERENCE DATA

## PARAMETRIC DATA

BREF = 7.6875 SQ.FT. XMRP = 75.7500 INCHES  
 LREF = 2.5400 FEET YMRP = .0000 INCHES  
 BREF = 3.6760 FEET ZMRP = 14.1100 INCHES  
 SCALE = .0000

ELVN-R = -4.000 ELVN-L = -4.000  
 ELEVON = -4.000

RUN NO. 67/ 0 RN/L = .45 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA	HTE/B	CL	CD	CN	CA	Q(PSF)	CY	CBL	CYN	CAB	CLM
-4.000	.199	-.25534	.06280	-.25910	.04484	6.41856	.01023	.00411	-.00079	-.01388	-.14443
-4.000	.249	-.23390	.06048	-.23755	.04402	6.35993	.01324	.00312	-.00043	-.01105	-.13454
-4.000	.299	-.23083	.06060	-.23449	.04435	6.31999	.01324	.00265	-.00045	-.01111	-.13682
-4.000	.349	-.21377	.05808	-.21730	.04303	6.32503	.01315	.00165	.00025	-.01087	-.12631
-4.000	.399	-.21024	.05894	-.21383	.04414	6.35856	.01304	.00117	.00023	-.01174	-.12544
-4.000	.448	-.20363	.05681	-.20709	.04247	6.41810	.00984	-.00027	.00124	-.01108	-.12177
-4.000	.501	-.19754	.05714	-.20104	.04322	6.49860	.01270	.00016	.00092	-.01080	-.11894
-4.000	.600	-.19313	.05487	-.19649	.04126	6.60751	.00951	-.00117	.00115	-.01004	-.11518
-4.000	.698	-.19379	.05481	-.19714	.04116	6.62901	.00651	-.00210	.00216	-.01077	-.11725
-4.000	.800	-.19522	.05369	-.19849	.03994	6.62043	.00654	-.00160	.00146	-.01064	-.11738
-4.000	.900	-.20012	.05536	-.20350	.04126	6.61065	.00653	-.00156	.00072	-.01062	-.12133
-4.000	1.000	-.19927	.05535	-.20264	.04132	6.60087	.00656	-.00110	.00075	-.01016	-.12085
-4.000	1.501	-.20229	.05210	-.20543	.03786	6.55176	.00058	-.00240	.00061	-.00997	-.12440
GRADIENT		.03108	-.00723	.03151	-.00505	.23436	-.00968	-.00481	.00105	.00172	.01210

RUN NO. 68/ 0 RN/L = .45 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA	HTE/B	CL	CD	CN	CA	Q(PSF)	CY	CBL	CYN	CAB	CLM
-2.050	.165	-.18191	.04737	-.18349	.04083	6.44184	.00404	.00334	-.00104	-.01236	-.08763
-2.050	.199	-.15937	.04952	-.16104	.04379	6.39350	.00701	.00335	-.00138	-.01289	-.07623
-2.050	.249	-.13430	.04642	-.13587	.04159	6.34438	.00385	.00295	-.00105	-.01228	-.06396
-2.050	.299	-.13006	.04777	-.13169	.04309	6.31999	.00997	.00236	-.00098	-.01201	-.06354
-2.050	.349	-.12263	.04612	-.12420	.04171	6.33475	.00988	.00137	-.00023	-.01163	-.06039
-2.050	.399	-.12438	.04463	-.12590	.04015	6.37605	.00674	.00092	.00009	-.01151	-.06298
-2.050	.448	-.11628	.04528	-.11983	.04102	6.44531	.00665	.00092	.00009	-.01131	-.05983
-2.050	.501	-.11675	.04601	-.11832	.04180	6.52581	.00656	-.00003	.00081	-.01086	-.05843
-2.050	.600	-.11884	.04431	-.12035	.04003	6.61139	.00642	-.00142	.00077	-.01124	-.06119
-2.050	.698	-.11980	.04299	-.12126	.03868	6.62870	.00346	-.00138	.00110	-.00907	-.06280
-2.050	.800	-.12001	.04306	-.12147	.03874	6.61870	.00345	-.00138	.00110	-.01017	-.06334
-2.050	.900	-.12368	.04451	-.12520	.04006	6.60892	.00052	-.00086	.00071	-.01112	-.06611
-2.050	1.000	-.12381	.04329	-.12527	.03883	6.59914	.00349	-.00042	-.00034	-.01108	-.06507
-2.050	1.501	-.13072	.04386	-.13220	.03915	6.55003	.00346	-.00182	-.00037	-.01174	-.07113
GRADIENT		.02018	-.00380	.02031	-.00308	.22073	-.00396	-.00417	.00093	.00106	.00278

DATE OF NOV 72

## TABULATED SOURCE DATA - MSC/LTV MAS

PAGE 33

LTV LSWT S-081 B1W1V1G1 (BELT MOVING)

(R00006) (07 NOV 72)

## REFERENCE DATA

BREF = 7.8675 SQ.FT. XMRP = 75.7500 INCHES  
 LREF = 2.5400 FEET YMRP = .0000 INCHES  
 BREF = 3.6780 FEET ZMRP = 14.1100 INCHES  
 SCALE = .0000

## PARAMETRIC DATA

ELVN-R = -4.000 ELVN-L = -4.000  
 ELEVON = -4.000

RUN NO. 69/0 RN/L = .44 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA	HTE/B	CL	CD	CN	CA	Q(PSF)	CY	CBL	CYN	CAB	CLM
.000	.149	-.06401	.04350	-.06401	.04350	6.43804	.00085	.00350	-.00082	-.01233	-.01782
.000	.199	-.06826	.04532	-.06826	.04532	6.37202	.00378	.00254	-.00116	-.01235	-.01141
.000	.249	-.06054	.04437	-.06054	.04437	6.32802	.00371	.00255	-.00116	-.01242	-.01107
.000	.299	-.05095	.04314	-.05095	.04314	6.31999	.00673	.00154	-.00072	-.01203	-.00622
.000	.349	-.04724	.04300	-.04724	.04300	6.34497	.00359	.00111	-.00036	-.01179	-.00553
.000	.399	-.04571	.04137	-.04571	.04137	6.39693	.00656	.00009	.00006	-.01038	-.00593
.000	.448	-.04395	.04217	-.04395	.04217	6.47393	.00346	.00030	-.00034	-.01168	-.00451
.000	.501	-.03869	.04166	-.03869	.04166	6.55443	.00342	.00029	.00040	-.01163	-.00089
.000	.600	-.04431	.04131	-.04431	.04131	6.61548	.00041	-.00116	.00074	-.00954	-.00686
.000	.698	-.04651	.04123	-.04651	.04123	6.62668	.00042	-.00116	.00073	-.01097	-.00773
.000	.800	-.05243	.04129	-.05243	.04129	6.61688	.00041	-.00163	.00074	-.00871	-.01193
.000	.900	-.05134	.04261	-.05134	.04261	6.60710	.00042	-.00117	.00000	-.01132	-.01108
.000	1.000	-.05496	.04141	-.05496	.04141	6.59733	-.00253	-.00067	-.00114	-.01126	-.01419
.000	1.501	-.05776	.04427	-.05776	.04427	6.54821	.00039	-.00165	-.00073	-.01108	-.01610
GRADIENT		.00687	-.00073	.00687	-.00073	.21925	-.00441	-.00366	.00031	.00128	-.00430

RUN NO. 70/0 RN/L = .44 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA	HTE/B	CL	CD	CN	CA	Q(PSF)	CY	CBL	CYN	CAB	CLM
1.970	.133	-.00634	.04466	-.00481	.04485	6.43530	.00074	.00406	-.00097	-.01248	.03775
1.970	.149	.00546	.04526	.00701	.04505	6.41275	.00067	.00363	-.00019	-.01144	.04332
1.970	.199	.01000	.04587	.01157	.04550	6.35632	.00669	.00259	-.00006	-.01016	.04137
1.970	.249	.01474	.04634	.01633	.04580	6.31999	.00053	.00275	.00062	-.01215	.04249
1.970	.299	.02322	.04528	.02477	.04445	6.32728	.00664	.00215	.00073	-.01052	.04661
1.970	.349	.01570	.04479	.01723	.04422	6.36261	.00962	.00113	.00120	-.01123	.03946
1.970	.399	.02031	.04453	.02183	.04381	6.42441	.00951	.00112	.00119	-.01142	.04180
1.970	.448	.01765	.04521	.01919	.04457	6.50141	.00939	.00065	.00120	-.01052	.03972
1.970	.501	.01626	.04463	.01778	.04404	6.58191	.00629	-.00021	.00155	-.01137	.03857
1.970	.600	.01737	.04317	.01884	.04255	6.61941	.00624	-.00067	.00156	-.00980	.03881
1.970	.698	.01036	.04165	.01179	.04126	6.62514	.00328	-.00107	.00191	-.01070	.03327
1.970	.800	.00799	.04288	.00946	.04258	6.61514	.00329	-.00107	.00192	-.00970	.03176
1.970	.900	.00666	.04164	.00828	.04138	6.60536	.00035	-.00015	.00073	-.00780	.03046
1.970	1.000	.00218	.04280	.00365	.04270	6.59558	.00329	-.00070	-.00031	-.00988	.02765
1.970	1.501	-.00249	.04042	-.00110	.04049	6.54647	.00625	-.00126	-.00062	-.00981	.02297
GRADIENT		-.00822	-.00414	-.00835	-.00385	.21054	-.00005	-.00393	-.00005	.00200	-.01578

DATE OF NOV 72

## TABULATED SOURCE DATA - MSC/LTV MA1

PAGE 34

LTV L8WT S-081 BIWIVIGI (BELT MOVING)

(R00006) (07 NOV 72 )

## REFERENCE DATA

BREF = 7,6875 SQ.FT. YMRF = 79.7500 INCHES  
 LREF = 2,5400 FEET YMRF = .0000 INCHES  
 BREF = 3,6760 FEET ZMRP = 14.1100 INCHES  
 SCALE = .0000

## PARAMETRIC DATA

ELVN-R = -4.000 ELVN-L = -4.000  
 ELEVON = -4.000

RUN NO. 71/0 RN/L = .44 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA	HTE/B	CL	CD	CN	CA	Q(PSF)	CY	CBL	CYN	CAB	CLM
3.930	.117	.08603	.04448	.08887	.03848	6.43274	.00351	.00174	-.00052	-.01088	.10210
3.930	.149	.10928	.04509	.11211	.03750	6.38763	-.00257	.00429	-.00003	-.00974	.11373
3.930	.199	.09515	.04575	.09806	.03912	6.34073	.00040	.00326	-.00029	-.00957	.10104
3.930	.249	.09898	.04618	.10191	.03928	6.31999	.00339	.00175	-.00051	-.00970	.10104
3.930	.299	.09988	.04615	.10281	.03919	6.33703	.00337	.00133	.00029	-.00980	.10095
3.930	.349	.09915	.04584	.10206	.03894	6.38015	.00638	.00081	.00075	-.01089	.09939
3.930	.399	.09555	.04517	.09842	.03851	6.45169	.00632	.00132	.00146	-.00800	.09510
3.930	.448	.09681	.04481	.09965	.03807	6.52869	.00618	-.00013	.00061	-.00954	.09578
3.930	.501	.09325	.04667	.09623	.04017	6.60150	.00613	-.00011	.00080	-.01048	.09382
3.930	.600	.09310	.04402	.09590	.03754	6.62330	.00315	-.00050	.00116	-.00950	.09309
3.930	.698	.08957	.04380	.09236	.03756	6.62341	-.00274	-.00086	.00111	-.00994	.09021
3.930	.800	.08378	.04472	.08665	.03888	6.61341	-.00274	-.00132	.00115	-.00979	.08636
3.930	.900	.07692	.04430	.07977	.03892	6.60363	-.00275	-.00098	-.00034	-.01001	.08162
3.930	1.000	.07473	.04418	.07759	.03896	6.59385	.00317	-.00063	-.00030	-.00913	.08043
3.930	1.501	.07287	.04437	.07574	.03927	6.54474	.00016	-.00159	-.00136	-.00868	.07835
GRADIENT	-0.02265	-.00123	-.02268	.00033	.20928	-.00292	-.00368	-.00055	.00078	-.02321	

RUN NO. 72/0 RN/L = .44 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA	HTE/B	CL	CD	CN	CA	Q(PSF)	CY	CBL	CYN	CAB	CLM
6.000	.102	.20197	.05226	.20633	.03086	6.42886	.00322	.00268	-.00146	-.00942	.17760
6.000	.149	.19021	.05265	.19468	.03248	6.36832	.00326	.00324	-.00076	-.01058	.16639
6.000	.199	.19030	.05160	.19465	.03143	6.32433	.00014	.00239	-.00031	-.01018	.16431
6.000	.249	.18913	.05151	.19348	.03146	6.31999	.00015	.00266	-.00036	-.01041	.16233
6.000	.299	.18566	.05232	.19011	.03263	6.34911	.00014	.00246	.00045	-.01010	.15949
6.000	.349	.18153	.05293	.18606	.03367	6.40340	.00314	.00140	.00023	-.00994	.15608
6.000	.399	.18181	.05129	.18617	.03200	6.48040	.00007	.00101	.00061	-.01042	.15491
6.000	.448	.17956	.05195	.18400	.03289	6.55740	.00302	.00045	.00033	-.01150	.15331
6.000	.501	.17464	.05246	.17917	.03392	6.60541	.00594	-.00046	.00084	-.01026	.14998
6.000	.600	.17182	.05080	.17619	.03257	6.62741	.00002	-.00045	.00002	-.00969	.14706
6.000	.698	.16734	.05037	.17169	.03260	6.62158	.00001	-.00129	.00086	-.01147	.14410
6.000	.800	.16309	.04869	.16729	.03138	6.61158	.00003	-.00047	.00002	-.01123	.14102
6.000	.900	.15975	.04964	.16406	.03267	6.60180	.00005	-.00009	-.00076	-.00956	.13945
6.000	1.000	.15636	.05060	.16079	.03398	6.59203	.00005	-.00054	-.00070	-.01018	.13743
6.000	1.501	.14944	.04886	.15373	.03297	6.54292	.00002	-.00110	-.00139	-.01046	.13223
GRADIENT	-0.03719	-.00290	-.03729	.00100	.20667	-.00196	-.00339	-.00046	-.00024	-.03040	

DATE OF NOV 72

## TABULATED SOURCE DATA - MSC/LTV MA1

PAGE 35

LTV LSWT S-081 BIWIVIGI (BELT MOVING)

(R00006) (07 NOV 72)

## REFERENCE DATA

BREF = 7,6675 SQ.FT. XMRP = 75.7500 INCHES  
 LREF = 2,5400 FEET YMRP = .0000 INCHES  
 BREF = 3,6780 FEET ZMRP = 14.1100 INCHES  
 SCALE = .0000

## PARAMETRIC DATA

ELVN-R = -4,000 ELVN-L = -4,000  
 ELEVON = -4,000

RUN NO. T3/0 RN/L = .43 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA	HTE/B	CL	CD	CN	CA	Q(PSF)	CY	CBL	CYN	CAB	CLM
7.930	.086	.31276	.06574	.31684	.02197	6.42688	.00289	.00271	-.00156	-.00938	.24698
7.930	.099	.30549	.06350	.31133	.02075	6.40755	-.00015	.00187	-.00109	-.01013	.24135
7.930	.149	.29068	.06426	.29697	.02352	6.35310	-.00008	.00282	-.00124	-.00961	.23190
7.930	.199	.28382	.06340	.28986	.02364	6.31999	.00301	.00330	-.00088	-.01069	.22547
7.930	.249	.28080	.06429	.28699	.02494	6.32930	.00296	.00187	-.00066	-.01276	.22352
7.930	.299	.27038	.06534	.27681	.02742	6.36625	.00293	.00092	-.00052	-.01182	.21646
7.930	.349	.26672	.06325	.27289	.02585	6.43005	.00694	-.00001	.00047	-.01206	.21344
7.930	.399	.25746	.06295	.26368	.02684	6.50706	.00582	-.00048	.00011	-.01115	.20643
7.930	.448	.25907	.06287	.26527	.02653	6.58406	.00279	-.00037	.00043	-.01114	.20701
7.930	.501	.26039	.06295	.26658	.02644	6.60921	.00276	-.00046	-.00029	-.01189	.20762
7.930	.600	.24668	.06224	.25290	.02762	6.62945	-.00017	-.00083	.00009	-.01165	.19771
7.930	.698	.24586	.06217	.25208	.02767	6.61989	-.00019	-.00128	.00016	-.01124	.19690
7.930	.800	.24396	.06193	.25017	.02769	6.60989	-.00014	-.00038	.00002	-.01357	.19631
7.930	.900	.23604	.06214	.24236	.02899	6.60011	-.00308	-.00038	-.00038	-.01148	.19128
7.930	1.000	.23526	.06207	.24157	.02903	6.59033	-.00015	-.00094	-.00063	-.01244	.19091
7.930	1.501	.22663	.05981	.23272	.02798	6.54122	.00279	-.00199	-.00082	-.01026	.18387
GRADIENT	-.05892	-.00327	-.05881	.00489	.19979	-.00205	-.00341	.00037	-.00080	-.04317	

RUN NO. T4/0 RN/L = .44 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA	HTE/B	CL	CD	CN	CA	Q(PSF)	CY	CBL	CYN	CAB	CLM
11.900	.054	.55210	.12684	.56676	.01205	6.42198	.01107	-.00199	-.00097	-.00926	.39882
11.900	.099	.51163	.12280	.52596	.01468	6.36605	.01746	-.00198	-.00013	-.01048	.37528
11.900	.149	.48283	.11809	.49680	.01601	6.32205	.01469	.00043	-.00032	-.01008	.35801
11.900	.199	.46246	.11510	.47625	.01729	6.32120	.01785	.00045	.00010	-.01088	.34606
11.900	.249	.45783	.11405	.47151	.01721	6.35167	.01471	.00057	.00043	-.01223	.34255
11.900	.299	.44447	.11108	.45783	.01706	6.40738	.01458	-.00036	.00063	-.01040	.33366
11.900	.349	.44128	.11149	.45479	.01812	6.48438	.01744	.00043	.00010	-.01180	.33172
11.900	.399	.42576	.10802	.43689	.01793	6.56138	.01423	-.00126	.00082	-.01204	.32093
11.900	.448	.42182	.10706	.43483	.01780	6.60547	.01413	-.00140	.00009	-.01243	.31858
11.900	.501	.41989	.10663	.43285	.01777	6.61697	.01116	-.00099	-.00041	-.01191	.31646
11.900	.600	.41015	.10456	.42289	.01775	6.62600	.01116	-.00129	.00041	-.01062	.30898
11.900	.698	.40843	.10424	.42114	.01780	6.61644	.00527	-.00165	.00041	-.01237	.30765
11.900	.800	.39877	.10223	.41128	.01782	6.60644	.00235	-.00170	.00000	-.01164	.30126
11.900	.900	.39830	.10214	.41080	.01783	6.59666	.00533	-.00167	.00041	-.01136	.30194
11.900	1.000	.39404	.10255	.40672	.01911	6.58689	.00240	-.00125	-.00009	-.01378	.29949
11.900	1.501	.38690	.09989	.39918	.01798	6.53777	.00241	-.00218	.00010	-.01240	.29461
GRADIENT	-.09636	-.01766	-.09793	.00259	.19402	-.01238	-.00121	.00024	-.00181	-.06321	

DATE OF NOV 72

## TABULATED SOURCE DATA - MSC/LTV MA1

PAGE 36

LTV LSWT S-061 B1WIV1G1 (BELT MOVING)

(R00006) (07 NOV 72)

## REFERENCE DATA

## PARAMETRIC DATA

BREF = 7.8875 SQ.FT. XMRP = 75.7500 INCHES  
 LREF = 2.3400 FEET YMRP = .0000 INCHES  
 BREF = 3.6780 FEET ZMRP = 14.1100 INCHES  
 SCALE = .0000

ELVN-R = -4.000 ELVN-L = -4.000  
 ELEVON = -4.000

RUN NO. 75/0 RN/L = .44 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA	HTE/B	CL	CD	CN	CA	Q(PSF)	CY	CBL	CYN	CAB	CLM
16.000	.019	.85176	.22912	.88194	-.01448	6.42114	.00988	-.00321	-.00044	-.00715	.57673
16.000	.049	.76822	.21293	.79716	-.00702	6.37853	.02253	-.00573	.00042	-.00813	.53923
16.000	.099	.71670	.20334	.74498	-.00204	6.33453	.02006	-.00176	.00038	-.01038	.51360
16.000	.149	.68125	.19720	.70922	.00182	6.31999	.01409	-.00215	.00040	-.01302	.49756
16.000	.199	.66244	.19310	.69000	.00306	6.34090	.01418	-.00032	-.00014	-.01339	.48696
16.000	.249	.63544	.18664	.66227	.00429	6.38713	.01719	-.00118	.00055	-.01311	.47112
16.000	.299	.62312	.18439	.64981	.00553	6.46254	.01700	-.00162	.00067	-.01322	.46313
16.000	.349	.60867	.18148	.63311	.00671	6.53954	.01981	-.00130	.00023	-.01440	.45343
16.000	.399	.59726	.17816	.62323	.00666	6.60235	.01369	-.00230	-.00031	-.01358	.44535
16.000	.448	.59846	.17848	.62446	.00664	6.61335	.01370	-.00097	-.00070	-.01292	.44548
16.000	.501	.59632	.17785	.62225	.00663	6.62485	.01661	-.00135	-.00017	-.01350	.44405
16.000	.600	.58948	.17722	.61550	.00790	6.62249	.01069	-.00279	-.00059	-.01368	.44001
16.000	.698	.58390	.17433	.60933	.00666	6.61294	.00777	-.00266	-.00028	-.01391	.43513
16.000	.800	.57887	.17416	.60445	.00791	6.60294	.00784	-.00179	-.00054	-.01333	.43268
16.000	.900	.57870	.17414	.60428	.00791	6.59316	.00786	-.00223	-.00042	-.01451	.43400
16.000	1.000	.57499	.17307	.60042	.00790	6.58336	.01091	-.00045	.00102	-.01442	.43064
16.000	1.501	.56610	.16926	.59082	.00669	6.53427	.01096	-.00225	.00156	-.01204	.42475
GRADIENT		-.14520	-.03147	-.14625	.00976	.18577	-.00686	.00064	.00047	-.00249	-.08434

RUN NO. 76/0 RN/L = .43 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA	HTE/B	CL	CD	CN	CA	Q(PSF)	CY	CBL	CYN	CAB	CLM
20.070	.075	.91927	.31301	.97087	-.02139	6.32494	.01022	.00001	.00013	-.01253	.65376
20.070	.099	.89443	.30946	.94831	-.01620	6.31999	.00723	-.00096	.00005	-.01399	.64248
20.070	.149	.83615	.29501	.88661	-.00978	6.33252	.01367	-.00017	-.00017	-.01657	.61195
20.070	.199	.80543	.28657	.85486	-.00717	6.37205	.01061	-.00178	.00079	-.01815	.59627
20.070	.249	.76338	.27988	.83186	-.00568	6.43908	.01365	-.00062	-.00001	-.01698	.58442
20.070	.299	.76917	.27613	.81722	-.00453	6.51608	.01053	-.00001	.00011	-.01558	.57367
20.070	.349	.75336	.27169	.80085	-.00327	6.59308	.01639	.00051	-.00079	-.01760	.56500
20.070	.399	.75573	.27259	.80338	-.00324	6.61000	.01044	.00102	-.00106	-.01840	.56574
20.070	.448	.74702	.26938	.79411	-.00327	6.62100	.01047	.00059	-.00091	-.01867	.56241
20.070	.501	.74922	.27021	.79645	-.00324	6.62887	.00458	.00195	-.00149	-.01809	.56147
20.070	.600	.74453	.26985	.79193	-.00197	6.61909	.00745	-.00138	.00019	-.01913	.56013
20.070	.698	.73462	.26621	.78137	-.00199	6.60954	.00165	.00022	.00029	-.01871	.55296
20.070	.800	.73356	.26582	.78024	-.00199	6.59954	.00459	-.00055	.00102	-.01883	.55249
20.070	.900	.72333	.26340	.76980	-.00076	6.58976	.00169	-.00039	.00131	-.01944	.54732
20.070	1.000	.72813	.26380	.77444	-.00203	6.57998	.00465	-.00013	.00066	-.01930	.54992
20.070	1.501	.72406	.26094	.76966	-.00333	6.53087	.00768	-.00049	.00144	-.01699	.54693
GRADIENT		-.11275	-.03159	-.11674	.00902	.17407	-.00623	-.00000	.00123	-.00267	-.06411

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## TABULATED SOURCE DATA - MSC/LTV MAI

PAGE 37

LTV LSWT S-081 BIWIVG1 (BELT MOVING)

(R00007) (07 NOV 72)

## REFERENCE DATA

## PARAMETRIC DATA

BREF = 7.8675 SQ.FT. XMRP = 75.7500 INCHES  
 LREF = 2.5400 FEET YMRP = .0000 INCHES  
 BREF = 3.6760 FEET ZMRP = 14.1100 INCHES  
 SCALE = .0000

ELVN-R = -6.000 ELVN-L = -6.000  
 ELEVON = -6.000

RUN NO. 77/0 RN/L = .44 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA	HTE/B	CL	CD	CN	CA	Q(PSF)	CY	CBL	CYN	CAB	CLM
-4.000	.199	-.29112	.05671	-.29451	.03626	6.41656	.01040	.00359	-.00084	-.01105	-.16042
-4.000	.249	-.26053	.05438	-.26369	.03607	6.35993	.01339	.00360	-.00119	-.01283	-.14586
-4.000	.299	-.24317	.05489	-.24840	.03766	6.31999	.01340	.00263	-.00048	-.01040	-.13687
-4.000	.349	-.23057	.05388	-.23377	.03767	6.32503	.01332	.00264	-.00047	-.01107	-.12987
-4.000	.399	-.23920	.05298	-.24231	.03617	6.35856	.01935	.00147	.00030	-.01067	-.13720
-4.000	.448	-.22250	.05281	-.22564	.03717	6.41810	.01304	.00014	.00090	-.00938	-.12571
-4.000	.501	-.21397	.05049	-.21697	.03544	6.49860	.00987	.00017	.00123	-.01002	-.12101
-4.000	.600	-.21287	.04984	-.21582	.03487	6.60751	.01263	-.00037	.00159	-.01002	-.12211
-4.000	.698	-.21199	.04967	-.21494	.03476	6.62901	.00379	-.00112	.00179	-.00767	-.11862
-4.000	.800	-.21610	.04750	-.21888	.03232	6.62043	.00082	-.00112	.00213	-.00816	-.12385
-4.000	.900	-.21875	.04771	-.22155	.03234	6.61065	.00968	-.00031	.00118	-.00983	-.12623
-4.000	1.000	-.22374	.04812	-.22656	.03240	6.60087	.00377	-.00060	.00035	-.00778	-.12952
-4.000	1.501	-.22560	.04725	-.22635	.03140	6.55176	.00076	-.00146	-.00010	-.00803	-.13205
GRADIENT		.03313	-.00814	.03361	-.00581	.23436	-.01162	-.00406	.00101	.00316	.01341

RUN NO. 78/0 RN/L = .43 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA	HTE/B	CL	CD	CN	CA	Q(PSF)	CY	CBL	CYN	CAB	CLM
-2.050	.165	-.20857	.05206	-.21030	.04457	6.44184	.00732	.00422	-.00062	-.01044	-.09502
-2.050	.199	-.17926	.05146	-.18099	.04501	6.39350	.00109	.00344	-.00071	-.01074	-.08119
-2.050	.249	-.17372	.05165	-.17546	.04540	6.34438	.01021	.00330	-.00097	-.01172	-.08278
-2.050	.299	-.16839	.05167	-.17013	.04562	6.31999	.01015	.00139	-.00102	-.01151	-.08056
-2.050	.349	-.14869	.04957	-.15037	.04422	6.33475	.00706	.00233	.00088	-.01163	-.06864
-2.050	.399	-.14291	.05041	-.14462	.04527	6.37605	.00694	.00092	.00084	-.01001	-.06569
-2.050	.448	-.14262	.04863	-.14427	.04350	6.44531	.00683	.00046	.00006	-.00804	-.06333
-2.050	.501	-.13735	.04791	-.13897	.04297	6.52581	.00972	-.00009	.00121	-.00938	-.06349
-2.050	.600	-.14045	.04624	-.14201	.04119	6.61139	.00368	-.00048	.00185	-.00754	-.06821
-2.050	.698	-.14342	.04623	-.14498	.04107	6.62870	.00369	-.00094	.00183	.00091	-.06823
-2.050	.800	-.14257	.04501	-.14409	.03989	6.61870	.00074	-.00090	.00216	-.00854	-.06833
-2.050	.900	-.14865	.04529	-.15017	.03995	6.60892	.00072	-.00086	.00069	-.00858	-.07307
-2.050	1.000	-.15010	.04540	-.15163	.04000	6.59914	.00365	-.00042	-.00035	-.00720	-.07518
-2.050	1.501	-.15594	.04592	-.15748	.04031	6.55003	.00071	-.00085	-.00003	-.00607	-.07887
GRADIENT		.02346	-.00603	.02367	-.00519	.22073	-.00614	-.00379	.00081	.00468	.00498

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## TABULATED SOURCE DATA - MSC/LTV MAI

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LTV LWT S-001 B1W1W1G1 (BELT MOVING)

(R00007) (07 NOV 72)

## REFERENCE DATA

BREF = 7.6675 SQ.FT. XMRP = 75.7500 INCHES  
 LREF = 2.5400 FEET YMRP = .0000 INCHES  
 BREF = 3.6750 FEET ZMRP = 14.1100 INCHES  
 SCALE = .0000

## PARAMETRIC DATA

ELVN-R = -6.000 ELVN-L = -6.000  
 ELEVON = -6.000

RUN NO. 79/0 RN/L = .43 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA	HTE/B	CL	CD	CN	CA	Q(PSF)	CY	CBL	CYN	CAB	CLM
.000	.149	-.11676	.04465	-.11676	.04465	6.43804	-.00190	.00450	-.00127	-.01189	-.02859
.000	.199	-.09559	.04390	-.09559	.04390	6.37202	.00399	.00395	-.00119	-.01192	-.02279
.000	.249	-.08909	.04426	-.08909	.04426	6.32802	.00085	.00260	-.00083	-.00964	-.02020
.000	.299	-.08660	.04173	-.08660	.04173	6.31995	.00363	.00160	-.00039	-.01002	-.00889
.000	.349	-.07458	.04156	-.07458	.04156	6.34497	.00998	.00241	.00044	-.01055	-.01555
.000	.399	-.07155	.04125	-.07155	.04125	6.39693	.00681	.00103	.00080	-.00856	-.01359
.000	.448	-.07317	.04206	-.07317	.04206	6.47393	.00370	.00061	.00113	-.00968	-.01594
.000	.501	-.06994	.04031	-.06994	.04031	6.55443	-.00236	-.00067	.00031	-.00840	-.01462
.000	.600	-.06935	.03993	-.06935	.03993	6.61548	.00356	-.00032	.00112	-.00888	-.01537
.000	.698	-.07149	.03861	-.07149	.03861	6.62688	.00681	-.00118	.00145	-.00935	-.01598
.000	.800	-.07166	.03867	-.07166	.03867	6.61688	-.00231	-.00021	.00104	-.00871	-.01691
.000	.900	-.07762	.03874	-.07762	.03874	6.60710	-.00529	-.00063	-.00009	-.00994	-.02116
.000	1.000	-.07887	.03752	-.07887	.03752	6.59733	.00058	-.00075	-.00075	-.00841	-.02202
.000	1.501	-.08308	.04163	-.08308	.04163	6.54821	-.00536	-.00109	-.00083	-.00801	-.02497
GRADIENT	.01021	-.00365	.01021	-.00365	.21923	-.00694	-.00397	.00015	.00222	-.00321	

RUN NO. 80/0 RN/L = .44 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA	HTE/B	CL	CD	CN	CA	Q(PSF)	CY	CBL	CYN	CAB	CLM
1.970	.133	-.03093	.04501	-.02936	.04604	6.43530	-.00211	.00410	-.00141	-.00965	.03010
1.970	.149	-.04203	.04481	-.04047	.04622	6.41275	.00694	.00255	-.00008	-.00960	.01996
1.970	.199	-.01972	.04476	-.01817	.04541	6.35632	-.00227	.00327	.00092	-.00991	.03018
1.970	.249	-.01636	.04386	-.01484	.04439	6.31999	.00069	.00224	.00063	-.01046	.02896
1.970	.299	-.01266	.04394	-.01114	.04434	6.32728	.00681	.00117	.00076	-.00903	.03148
1.970	.349	-.01024	.04248	-.00878	.04280	6.36261	.00677	.00166	.00150	-.01062	.03107
1.970	.399	-.01150	.04334	-.01000	.04371	6.42441	.00666	.00070	.00153	-.00929	.02847
1.970	.448	-.00780	.04169	-.00636	.04195	6.50141	.00656	.00025	.00229	-.00864	.02994
1.970	.501	-.00531	.04252	-.00384	.04268	6.58191	.00941	-.00072	.00197	-.00911	.03247
1.970	.600	-.00765	.04097	-.00624	.04121	6.61941	.00343	-.00153	.00192	-.00972	.02942
1.970	.698	-.01348	.04073	-.01208	.04117	6.62514	.00343	-.00154	.00192	-.00804	.02920
1.970	.800	-.01468	.04075	-.01327	.04123	6.61914	-.00241	-.00052	.00180	-.00712	.02456
1.970	.900	-.02176	.04057	-.02035	.04129	6.60536	.00031	-.00062	.00074	-.00804	.01885
1.970	1.000	-.01939	.04070	-.01798	.04134	6.59558	.00346	-.00069	.00041	-.00843	.02110
1.970	1.501	-.02431	.03959	-.02294	.04041	6.54647	.00343	-.00166	-.00028	-.00712	.01614
GRADIENT	.00164	-.00430	.00169	-.00435	.21054	-.00688	-.00389	.00004	.00228	-.00974	

DATE 07 NOV 72

## TABULATED SOURCE DATA - MSC/LTV MAI

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LTV LSWT S-061 BIWIVIG1 (BELT MOVING)

(R00007) (07 NOV 72)

## REFERENCE DATA

## PARAMETRIC DATA

BREF = 7.8875' SO.FT. XMRP = 75.7500 INCHES  
 LREF = 2.5400 FEET YMRP = .0000 INCHES  
 BREF = 3.6780 FEET ZMRP = 14.1100 INCHES  
 SCALE = .0000

ELVN-R = -6.000 ELVN-L = -6.000  
 ELEVON = -6.000

RUN NO. 81/0 RN/L = .43 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA	HTE/B	CL	CD	CN	CA	Q(PSF)	CY	CBL	CYN	CAB	CLM
3.930	.117	.06260	.04406	.06548	.03966	6.43274	-.00230	.00373	-.00077	-.01087	.09511
3.930	.149	.06402	.04317	.06682	.03869	6.38763	.00066	.00329	.00045	-.00962	.09184
3.930	.199	.07036	.04263	.07312	.03771	6.34073	.00364	.00274	.00015	-.01073	.09184
3.930	.249	.07170	.04287	.07447	.03786	6.31999	.00053	.00235	.00054	-.00974	.09143
3.930	.299	.06898	.04260	.07174	.03777	6.33703	.00357	.00178	.00024	-.00917	.08795
3.930	.349	.06608	.04215	.06881	.03752	6.38015	.00356	.00140	.00180	-.00844	.08552
3.930	.399	.07841	.04261	.08114	.03714	6.45169	.00343	.00041	.00110	-.00834	.09249
3.930	.448	.07278	.04179	.07547	.03671	6.52869	.00337	-.00052	.00116	-.00912	.08828
3.930	.501	.06381	.04075	.06645	.03629	6.60130	.00924	-.00063	.00123	-.00910	.08134
3.930	.600	.06594	.03955	.06850	.03494	6.62330	.00328	-.00104	.00045	-.00973	.08173
3.930	.698	.06005	.04042	.06268	.03621	6.62341	-.00550	-.00126	.00146	-.00866	.07862
3.930	.800	.05545	.04015	.05807	.03625	6.61341	-.00256	-.00089	.00110	-.00636	.07476
3.930	.900	.05671	.04028	.05934	.03630	6.60363	-.00552	-.00045	-.00007	-.00979	.07598
3.930	1.000	.05209	.04002	.05471	.03636	6.59385	-.00259	-.00100	-.00036	-.00736	.07211
3.930	1.501	.04661	.03992	.04923	.03663	6.54474	.00033	-.00161	-.00140	-.00770	.06842
GRADIENT	-.01773	-.00314	-.01791	-.00192	.20928	-.00380	-.00391	-.00090	.00204	-.02079	

RUN NO. 82/0 RN/L = .43 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA	HTE/B	CL	CD	CN	CA	Q(PSF)	CY	CBL	CYN	CAB	CLM
6.000	.102	.17559	.04346	.17938	.02686	6.42886	.00041	.00368	-.00125	-.01101	.16819
6.000	.149	.17071	.04787	.17478	.02977	6.36832	-.00267	.00333	-.00087	-.01041	.16261
6.000	.199	.16681	.04769	.17088	.02999	6.32433	.00344	.00331	.00000	-.01051	.15679
6.000	.249	.16584	.04628	.16977	.02869	6.31999	.00651	.00321	-.00034	-.01013	.15553
6.000	.299	.16008	.04687	.16410	.02989	6.34911	.00645	.00186	.00058	-.00964	.15136
6.000	.349	.15622	.04624	.16020	.02966	6.40340	.00635	.00089	.00069	-.01000	.14687
6.000	.399	.15200	.04346	.15592	.02932	6.46040	.00025	.00052	.00064	-.00931	.14377
6.000	.448	.15371	.04530	.15761	.02898	6.55740	.00319	-.00002	.00036	-.00905	.14409
6.000	.501	.15375	.04510	.15762	.02878	6.60541	.00314	-.00048	.00041	-.00813	.14371
6.000	.600	.14739	.04435	.15122	.02870	6.62741	.00019	-.00085	.00079	-.00853	.13860
6.000	.698	.14407	.04402	.14788	.02872	6.62158	.00020	-.00085	.00079	-.00934	.13674
6.000	.800	.13847	.04347	.14226	.02876	6.61158	.00019	-.00132	.00085	-.00924	.13275
6.000	.900	.13403	.04304	.13779	.02880	6.60180	-.00569	-.00047	-.00081	-.00863	.12954
6.000	1.000	.13062	.04398	.13450	.03009	6.59203	.00022	-.00057	-.00072	-.00813	.12781
6.000	1.501	.12706	.04256	.13081	.02905	6.54292	.00018	-.00158	-.00136	-.00834	.12545
GRADIENT	-.03694	-.00371	-.03713	.00018	.20667	-.00357	-.00404	-.00047	.00180	-.03086	

DATE 07 NOV 72

## TABULATED SOURCE DATA - MSC/LTV MAI

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LTV LSWT S-081 BIWIVIGI (BELT MOVING)

(R00007) (07 NOV 72)

## REFERENCE DATA

## PARAMETRIC DATA

BREF = 7.8875 80.FT. XMRP = 75.7500 INCHES  
 LREF = 2.9400 FEET YMRP = .0000 INCHES  
 BREF = 3.6780 FEET ZMRP = 14.1100 INCHES  
 SCALE = .0000

ELVN-R = -6.000 ELVN-L = -6.000  
 ELEVON = -6.000

RUN NO. 83/0 RN/L = .43 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA	HTE/B	CL	CD	CN	CA	Q(PSF)	CY	CBL	CYN	CAB	CLM
7.930	.086	.26648	.06437	.27281	.02700	6.42688	.01221	.00121	-.00085	-.01005	.22730
7.930	.099	.25626	.06436	.26269	.02839	6.40755	.00314	.00141	-.00061	-.01045	.21974
7.930	.149	.24398	.06287	.25032	.02862	6.35310	.01239	.00130	-.00009	-.01040	.21060
7.930	.199	.24530	.06189	.25149	.02746	6.31999	.00937	.00224	-.00066	-.00897	.20960
7.930	.249	.23640	.06062	.24250	.02743	6.32930	.01242	.00138	.00068	-.00948	.20214
7.930	.299	.22753	.06057	.23371	.02861	6.36625	.00926	.00053	.00115	-.00868	.19475
7.930	.349	.22413	.05981	.23023	.02832	6.43005	.00918	.00053	.00114	-.00722	.19259
7.930	.399	.22146	.05912	.22750	.02800	6.50706	.01198	.00142	.00108	-.00940	.18908
7.930	.448	.22120	.05874	.22719	.02767	6.58406	.01187	-.00049	.00093	-.00930	.18943
7.930	.501	.21319	.05881	.21926	.02884	6.60921	.01178	-.00185	.00113	-.00875	.18317
7.930	.600	.20914	.05815	.21516	.02875	6.62945	.01175	-.00230	.00119	-.00864	.18108
7.930	.698	.20704	.05791	.21305	.02880	6.61989	.00884	-.00175	.00145	-.00932	.17867
7.930	.800	.20041	.05703	.20636	.02884	6.60989	.00591	-.00177	.00104	-.00925	.17408
7.930	.900	.19728	.05662	.20320	.02887	6.60011	.00301	-.00086	.00049	-.00745	.17279
7.930	1.000	.19292	.05605	.19881	.02890	6.59033	.00597	-.00097	.00018	-.00843	.16950
7.930	1.501	.19202	.05617	.19793	.02915	6.54122	.00297	-.00202	.00004	-.00839	.16899
GRADIENT	-.05243	-.00616	-.05280	.00113	.19979	-.00550	-.00324	.00045	.00124	-.04094	

RUN NO. 84/0 RN/L = .43 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA	HTE/B	CL	CD	CN	CA	Q(PSF)	CY	CBL	CYN	CAB	CLM
11.900	.054	.51870	.11613	.53150	.00670	6.42198	.01436	-.00078	-.00161	-.00799	.36488
11.900	.099	.48744	.11220	.50010	.00930	6.36605	.00853	-.00025	-.00183	-.00822	.36854
11.900	.149	.45484	.10668	.46707	.01061	6.32205	.00877	.00143	-.00064	-.00968	.34823
11.900	.199	.43054	.10423	.44279	.01323	6.32120	.00879	.00001	-.00033	-.00969	.33303
11.900	.249	.41644	.10250	.42863	.01444	6.35167	.01493	-.00009	-.00022	-.01075	.32477
11.900	.299	.40953	.09959	.42128	.01301	6.40738	.01480	-.00010	-.00022	-.01057	.31923
11.900	.349	.40207	.09918	.41388	.01415	6.48438	.01162	-.00042	.00019	-.00959	.31384
11.900	.399	.39514	.09752	.40676	.01398	6.56138	.01448	-.00009	-.00022	-.01164	.30973
11.900	.448	.39049	.09517	.40172	.01262	6.60547	.01140	-.00102	-.00043	-.01069	.30613
11.900	.501	.38283	.09356	.39389	.01262	6.61697	.00842	-.00136	-.00001	-.01067	.29896
11.900	.600	.38318	.09490	.39451	.01386	6.62600	.00841	-.00135	-.00001	-.00844	.29942
11.900	.698	.37952	.09285	.39051	.01261	6.61644	.00844	-.00136	-.00001	-.00986	.29789
11.900	.800	.37318	.09154	.38404	.01263	6.60644	.00258	-.00083	-.00020	-.01050	.29302
11.900	.900	.36918	.09070	.37995	.01264	6.59666	.00554	-.00096	-.00052	-.01056	.29036
11.900	1.000	.36121	.09161	.37234	.01517	6.58689	.00561	-.00036	.00010	-.01197	.28611
11.900	1.501	.35877	.09383	.37040	.01784	6.53777	-.00031	-.00117	.00020	-.01163	.28555
GRADIENT	-.09307	-.01500	-.09417	.00450	.19402	-.00899	-.00095	.00087	-.00182	-.06084	

DATE OF NOV 72

## TABULATED SOURCE DATA - MSC/LTV MA1

PAGE 41

LTV L8MT S-001 BIWIVIGI (BELT MOVING)

(R00007) (07 NOV 72)

## REFERENCE DATA

## PARAMETRIC DATA

BREF = 7.8675 SQ.FT. XHYP = 75.7500 INCHES  
 LREF = 2.5400 FEET YHYP = .0000 INCHES  
 EREF = 3.6760 FEET ZHYP = 14.1100 INCHES  
 SCALE = .0000

ELVN-R = -6.000 ELVN-L = -6.000  
 ELEVON = -6.000

RUN NO. 85/ 0 RN/L = .43 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA	HTE/B	CL	CD	CN	CA	Q(PSF)	CY	CBL	CYN	CAB	CLM
16.000	.019	.80202	.21870	.83123	-.01079	6.42114	.01321	-.00362	.00008	-.00719	.55836
16.000	.049	.74138	.20783	.76994	-.00452	6.37853	.01054	-.00464	-.00007	-.00991	.53034
16.000	.099	.68152	.19587	.70911	.00047	6.33453	.01103	-.00220	-.00002	-.01201	.50156
16.000	.149	.65338	.19044	.68056	.00300	6.31999	.00819	-.00023	-.00026	-.01223	.48771
16.000	.199	.62269	.18427	.64936	.00553	6.34090	.01750	-.00028	.00027	-.01200	.47000
16.000	.249	.60658	.17962	.63260	.00549	6.38713	.01128	-.00063	.00029	-.01287	.45882
16.000	.299	.58698	.17580	.61463	.00668	6.46254	.01422	-.00080	-.00001	-.01282	.44851
16.000	.349	.57751	.17245	.60268	.00662	6.53954	.01102	-.00219	-.00002	-.01237	.44011
16.000	.399	.56635	.17105	.59348	.00779	6.60235	.00803	-.00090	-.00083	-.01374	.43458
16.000	.448	.56955	.17139	.59473	.00779	6.61335	.01093	-.00104	-.00112	-.01386	.43385
16.000	.501	.56082	.16887	.58565	.00777	6.62485	.01090	-.00236	-.00073	-.01336	.42893
16.000	.600	.55318	.16668	.57769	.00777	6.62249	.00798	-.00223	-.00042	-.01307	.42356
16.000	.698	.55055	.16594	.57495	.00779	6.61294	.00793	-.00224	-.00042	-.01297	.42085
16.000	.800	.54691	.16491	.57118	.00780	6.60294	.00508	-.00210	-.00012	-.01304	.41883
16.000	.900	.54409	.16340	.56860	.00905	6.59316	.00513	-.00166	-.00025	-.01114	.41857
16.000	1.000	.54378	.16530	.56828	.00904	6.58338	.00815	-.00052	.00059	-.01504	.41852
16.000	1.501	.53573	.16176	.55956	.00785	6.53427	.01112	-.00292	.00096	-.01120	.41231
GRADIENT	-.14222	-.03190	-.14551	.00853	.18577	-.00352	.00004	.00042	-.00141	-.08387	

RUN NO. 86/ 0 RN/L = .43 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA	HTE/B	CL	CD	CN	CA	Q(PSF)	CY	CBL	CYN	CAB	CLM
20.070	.075	.87740	.30175	.92768	-.01760	6.32494	.01355	.00009	.00054	-.01294	.63512
20.070	.099	.84120	.29399	.89101	-.01247	6.31999	.01376	-.00072	-.00052	-.01383	.61737
20.070	.149	.79857	.28253	.84704	-.00861	6.33252	.01085	.00068	.00067	-.01642	.59450
20.070	.199	.77034	.27498	.81793	-.00601	6.37205	.01392	-.00038	.00069	-.01625	.57984
20.070	.249	.74303	.26639	.78932	-.00471	6.43908	.01387	-.00083	.00085	-.01604	.56431
20.070	.299	.73214	.26243	.77774	-.00469	6.51608	.01373	-.00020	-.00019	-.01714	.55766
20.070	.349	.72159	.26133	.76745	-.00210	6.59308	.01064	-.00002	.00010	-.01740	.55044
20.070	.399	.71314	.25825	.75846	-.00211	6.61000	.01356	-.00020	-.00018	-.01765	.54373
20.070	.448	.71279	.25944	.75853	-.00086	6.62100	.01063	-.00027	-.00059	-.01805	.54637
20.070	.501	.70433	.25634	.74953	-.00087	6.62887	.01061	-.00096	-.00112	-.01836	.54066
20.070	.600	.70578	.25554	.75061	-.00212	6.61909	.00770	-.00055	-.00013	-.01806	.54124
20.070	.698	.70454	.25511	.74930	-.00210	6.60954	.00179	-.00091	-.00008	-.01787	.53980
20.070	.800	.69797	.25270	.74231	-.00211	6.59954	-.00113	-.00118	.00037	-.01819	.53598
20.070	.900	.69902	.25305	.74341	-.00214	6.58976	.00483	.00010	.00154	-.01630	.53677
20.070	1.000	.69198	.25180	.73637	-.00090	6.57998	.00489	.00053	.00138	-.01951	.53313
20.070	1.501	.68796	.24765	.73116	-.00342	6.53087	.00188	-.00106	.00236	-.01601	.52799
GRADIENT	-.10525	-.03121	-.10958	.00680	.17407	-.01089	-.00064	.00136	-.00218	-.06133	

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## TABULATED SOURCE DATA - MSC/LTV HAS

PAGE 42

LTV LSWT S-081 BIWIVIGINI (BELT MOVING)

(RD00008) (07 NOV 72)

## REFERENCE DATA

## PARAMETRIC DATA

BREF = 7.8875 SQ.FT. XMRP = 75.7500 INCHES  
 LREF = 2.5400 FEET YMRP = .0000 INCHES  
 BREF = 3.6760 FEET ZMRP = 14.1100 INCHES  
 SCALE = .0000

ELVN-R = .000 ELVN-L = .000  
 ELEVON = .000

RUN NO. 88/0 RN/L = .43 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA	HTE/B	CL	CD	CN	CA	Q(PSF)	CY	CBL	CYN	CAB	CLM
-4.000	.199	-.17506	.05760	-.17865	.04525	6.41856	.00951	.00269	-.00081	-.01474	-.12499
-4.000	.249	-.16167	.05720	-.16527	.04579	6.35993	.00940	.00222	-.00083	-.01698	-.12648
-4.000	.299	-.14069	.05603	-.14426	.04608	6.31999	.01254	.00213	.00035	-.01474	-.11109
-4.000	.349	-.14335	.05491	-.14663	.04477	6.32503	.00939	.00113	.00141	-.01597	-.11634
-4.000	.399	-.13166	.05516	-.13519	.04585	6.35856	.01542	.00160	-.00001	-.01585	-.10930
-4.000	.448	-.12810	.05452	-.13159	.04546	6.41810	.01524	-.00045	.00214	-.01505	-.10738
-4.000	.501	-.12061	.05215	-.12395	.04361	6.49860	.01204	-.00035	.00170	-.01541	-.10109
-4.000	.600	-.11985	.05268	-.12324	.04419	6.60751	.00886	-.00128	.00270	-.01517	-.10211
-4.000	.698	-.12671	.05178	-.13001	.04282	6.62901	.00566	-.00122	.00229	-.01355	-.10951
-4.000	.800	-.12931	.05204	-.13262	.04289	6.62043	.00290	-.00114	.00189	-.01349	-.11276
-4.000	.900	-.12844	.05078	-.13167	.04170	6.61065	-.00005	-.00107	.00149	-.01486	-.11246
-4.000	1.000	-.13218	.04981	-.13534	.04047	6.60087	.00881	-.00026	.00054	-.01416	-.11527
-4.000	1.501	-.13806	.05057	-.14126	.04082	6.55176	.00879	-.00161	-.00026	-.01530	-.12239
GRADIENT		.01765	-.00605	.01802	-.00480	.23436	-.00529	-.00324	.00034	.00094	-.00109

RUN NO. 89/0 RN/L = .43 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA	HTE/B	CL	CD	CN	CA	Q(PSF)	CY	CBL	CYN	CAB	CLM
-2.050	.165	-.09977	.05251	-.10158	.04691	6.44184	-.00254	.00351	-.00106	-.01439	-.05763
-2.050	.199	-.08661	.05380	-.08848	.05067	6.39350	-.00270	.00354	-.00105	-.01481	-.05722
-2.050	.249	-.07050	.05235	-.07233	.04979	6.34438	.00026	.00300	.00011	-.01597	-.04916
-2.050	.299	-.06489	.05369	-.06677	.05134	6.31999	.00019	.00304	-.00064	-.01449	-.04894
-2.050	.349	-.05258	.05314	-.05445	.05123	6.33475	.00631	.00242	.00019	-.01528	-.04098
-2.050	.399	-.04624	.05129	-.04804	.04960	6.37605	.00320	.00245	.00053	-.01359	-.03658
-2.050	.448	-.04819	.05086	-.04998	.04911	6.44531	.00308	.00007	.00047	-.01429	-.03890
-2.050	.501	-.04538	.05146	-.04719	.04981	6.52581	.00004	.00009	.00155	-.01491	-.03914
-2.050	.600	-.04481	.04953	-.04655	.04790	6.61139	.00299	-.00046	.00266	-.01470	-.03639
-2.050	.698	-.05177	.04843	-.05347	.04654	6.62670	-.00584	-.00075	.00216	-.01566	-.04360
-2.050	.800	-.05429	.04860	-.05599	.04663	6.61870	-.00882	-.00069	.00176	-.01309	-.04698
-2.050	.900	-.05919	.04885	-.06090	.04670	6.60892	-.00296	-.00034	.00112	-.01415	-.05281
-2.050	1.000	-.05694	.04757	-.05860	.04550	6.59914	-.00593	.00023	-.00074	-.01429	-.05088
-2.050	1.501	-.06343	.04691	-.06506	.04461	6.55003	-.00605	-.00116	-.00078	-.01304	-.05750
GRADIENT		.01412	-.00566	.01431	-.00516	.22073	-.00670	-.00387	.00038	.00147	-.00439

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## TABULATED SOURCE DATA - MSC/LTV MAS

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LTV LSWT S-061 BIWIVIGINI (BELT MOVING)

(R00008) (07 NOV 72)

## REFERENCE DATA

BREF = 7,6675 SQ.FT. XMRP = 75,7300 INCHES  
 LRFP = 2,8400 FEET YMRP = .0000 INCHES  
 BREF = 3,6760 FEET ZMRP = 14,1100 INCHES  
 SCALE = .0000

## PARAMETRIC DATA

ELVN-R = .000 ELVN-L = .000  
 ELEVON = .000

RUN NO. 90/0 RN/L = .43 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA	HTE/B	CL	CD	CN	CA	Q(PSF)	CY	CBL	CYN	CAB	CLM
.000	.149	-.01580	.04889	-.01580	.04889	6,43804	.00045	.00356	-.00155	-.01504	.01096
.000	.199	.02124	.04947	.02124	.04947	6,37202	.00033	.00363	-.00079	-.01829	.03188
.000	.249	.01493	.04989	.01493	.04989	6,32802	-.00286	.00226	-.00120	-.01563	.02259
.000	.299	.02458	.05128	.02458	.05128	6,31999	.00019	.00269	-.00077	-.01444	.02744
.000	.349	.02307	.04850	.02307	.04850	6,34497	.00317	.00117	-.00032	-.01500	.02297
.000	.399	.03390	.04680	.03390	.04680	6,39693	.00315	.00070	.00043	-.01580	.03241
.000	.448	.02978	.04882	.02978	.04882	6,47393	.00912	.00011	.00127	-.01582	.02770
.000	.501	.02699	.04698	.02699	.04698	6,55443	.00305	-.00024	.00192	-.01534	.02490
.000	.600	.02779	.04658	.02779	.04658	6,61548	-.00290	-.00059	.00184	-.01540	.02399
.000	.698	.01947	.04651	.01947	.04651	6,62688	-.00585	-.00055	.00143	-.01555	.01666
.000	.800	.01953	.04532	.01953	.04532	6,61688	-.00586	-.00055	.00143	-.01549	.01692
.000	.900	.01950	.04539	.01950	.04539	6,60710	-.00589	-.00056	.00070	-.01495	.01605
.000	1.000	.01834	.04545	.01834	.04545	6,59733	-.00297	-.00016	-.00110	-.01489	.01453
.000	1.501	.01004	.04457	.01004	.04457	6,54821	-.00603	-.00152	-.00076	-.01454	.00615
GRADIENT		.00012	-.00456	.00012	-.00456	.21925	-.00710	-.00365	.00047	.00104	-.01385

RUN NO. 91/0 RN/L = .43 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA	HTE/B	CL	CD	CN	CA	Q(PSF)	CY	CBL	CYN	CAB	CLM
1.970	.133	.07675	.05156	.07847	.04889	6,43350	.00345	.00273	.00027	-.01397	.08595
1.970	.149	.08665	.05078	.08832	.04777	6,41275	.00950	.00263	.00036	-.01653	.09150
1.970	.199	.09430	.05263	.09606	.04955	6,35632	.00647	.00320	.00069	-.01507	.09294
1.970	.249	.10560	.05224	.10753	.04858	6,31999	.00641	.00274	.00072	-.01555	.09668
1.970	.299	.09926	.05330	.10104	.04985	6,32728	.00637	.00177	.00076	-.01463	.09148
1.970	.349	.09854	.05301	.10030	.04960	6,36261	.01242	.00119	.00164	-.01642	.08820
1.970	.399	.09274	.05234	.09449	.04912	6,42441	.01532	.00068	.00207	-.01527	.08326
1.970	.448	.10356	.05214	.10531	.04854	6,50141	.01215	.00077	.00312	-.01452	.09171
1.970	.501	.09873	.05012	.10040	.04670	6,58191	.01491	.00019	.00204	-.01460	.08616
1.970	.600	.09222	.05092	.09392	.04772	6,61941	.01186	-.00066	.00240	-.01447	.08079
1.970	.698	.08663	.04951	.09028	.04643	6,62514	.00597	-.00053	.00305	-.01329	.07763
1.970	.800	.08402	.04943	.08567	.04652	6,61314	.00301	-.00053	.00191	-.01127	.07532
1.970	.900	.08065	.04938	.08230	.04658	6,60536	.00301	-.00056	.00118	-.01561	.07100
1.970	1.000	.07717	.04934	.07682	.04666	6,59558	.00298	-.00059	.00044	-.01390	.06733
1.970	1.501	.07303	.04829	.07465	.04575	6,54647	.00591	-.00166	-.00132	-.01207	.06317
GRADIENT		-.01615	-.00346	-.01626	-.00290	.21054	-.00368	-.00363	-.00076	.00237	-.02492

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## TABULATED SOURCE DATA - MSC/LTV MA1

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LTV LWT S-081 BIWIVICINI (BELT MOVING)

(R00000) (07 NOV 72)

## REFERENCE DATA

## PARAMETRIC DATA

BREF = 7.6875 SQ.FT. XMRP = 75.7500 INCHES  
 LREF = 2.5400 FEET YMRP = .0000 INCHES  
 BREF = 3.6780 FEET ZMRP = 14.1100 INCHES  
 SCALE = .0000

ELVN-R = .000 ELVN-L = .000  
 ELEVON = .000

RUN NO. 92/0 RN/L = .43 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA	HTE/B	CL	CD	CN	CA	Q(PSF)	CY	CBL	CYN	CAB	CLM
3.930	.117	.19327	.05968	.19690	.04630	6.43274	.00943	.00261	.00022	-.01411	.17784
3.930	.149	.18088	.06052	.18460	.04799	6.38763	.00331	.00238	-.00056	-.01421	.16439
3.930	.199	.18921	.06281	.19307	.04970	6.34073	.00021	.00201	-.00018	-.01356	.16809
3.930	.249	.18504	.06136	.18881	.04854	6.31999	.00637	.00147	.00070	-.01583	.16474
3.930	.299	.18682	.06136	.19059	.04842	6.33703	.00636	.00242	.00063	-.01422	.16381
3.930	.349	.18432	.06088	.18806	.04810	6.38015	.01238	.00092	.00159	-.01257	.16111
3.930	.399	.18327	.06159	.18708	.04889	6.45169	.00918	.00047	.00119	-.01510	.15884
3.930	.447	.18120	.05961	.18486	.04705	6.52694	.01502	-.00005	.00205	-.01503	.15591
3.930	.501	.17430	.05989	.17799	.04781	6.60130	.00895	-.00035	.00272	-.01636	.14992
3.930	.600	.16783	.05932	.17150	.04768	6.62330	.00297	-.00127	.00123	-.01333	.14434
3.930	.698	.16549	.05916	.16916	.04768	6.62341	.00592	-.00171	.00241	-.01430	.14257
3.930	.800	.16108	.05892	.16474	.04774	6.61341	.00006	-.00075	.00152	-.01351	.13968
3.930	.900	.15780	.05877	.16146	.04781	6.60563	.00004	-.00066	.00005	-.01310	.13702
3.930	1.000	.15802	.05885	.16168	.04788	6.59385	.00296	-.00099	-.00100	-.01292	.13678
3.930	1.501	.14863	.05730	.15220	.04698	6.54474	.00592	-.00202	-.00126	-.01299	.12890
GRADIENT	-.03419	-.00303	-.03432	-.00069	.20933	-.00327	-.00363	-.00090	.00102	-.03502	

RUN NO. 93/0 RN/L = .43 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA	HTE/B	CL	CD	CN	CA	Q(PSF)	CY	CBL	CYN	CAB	CLM
6.000	.102	.30974	.06747	.31509	.03473	6.42886	.00318	.00334	-.00155	-.01438	.26283
6.000	.149	.29803	.06660	.30335	.03509	6.36832	.00315	.00193	-.00140	-.01513	.25247
6.000	.199	.28630	.06693	.29193	.03662	6.32433	.00942	.00341	.00005	-.01454	.24358
6.000	.248	.28290	.06662	.28832	.03669	6.31999	.00321	.00255	.00007	-.01461	.23933
6.000	.299	.27885	.06867	.28450	.03915	6.34911	.00624	.00159	.00061	-.01484	.23591
6.000	.349	.28269	.06744	.28820	.03753	6.40340	.00615	.00064	.00071	-.01406	.23895
6.000	.399	.28156	.06691	.28702	.03712	6.48040	.00902	-.00069	.00204	-.01466	.23565
6.000	.448	.27116	.06665	.27664	.03794	6.55670	.00596	-.00029	.00081	-.01609	.22667
6.000	.501	.26901	.06617	.27445	.03769	6.60541	.00863	-.00114	.00206	-.01538	.22476
6.000	.600	.26346	.06547	.26886	.03757	6.62741	.00584	-.00121	.00091	-.01672	.22048
6.000	.698	.25772	.06617	.26323	.03887	6.62158	.00000	-.00103	.00156	-.01611	.21668
6.000	.800	.25001	.06540	.25547	.03692	6.61158	.00295	-.00113	.00124	-.01661	.21149
6.000	.900	.24702	.06388	.25235	.03771	6.60180	-.00001	-.00083	-.00068	-.01575	.20916
6.000	1.000	.24743	.06395	.25276	.03774	6.59203	.00297	-.00001	-.00112	-.01357	.20992
6.000	1.501	.23740	.06321	.24270	.03805	6.54292	.00590	-.00150	-.00128	-.01355	.20077
GRADIENT	-.05003	-.00347	-.05012	.00178	.20673	-.00193	-.00333	-.00046	.00022	-.04250	

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## TABULATED SOURCE DATA - MSC/LTV MAI

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LTV L8WT S-081 BIW/VIGINI (BELT MOVING)

(RD00008) (07 NOV 72)

## REFERENCE DATA

BREF = 7.6875 SQ.FT. XMRP = 75.7500 INCHES  
 LREF = 2.3400 FEET YMRP = .0000 INCHES  
 BREF = 3.6780 FEET ZMRP = 14.1100 INCHES  
 SCALE = .0000

## PARAMETRIC DATA

ELVN-R = .000 ELVN-L = .000  
 ELEVON = .000

RUN NO. 94/0 RN/L = .43 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA	HTE/B	CL	CD	CN	CA	Q(PSF)	CY	CBL	CYN	CAB	CLM
7.930	.086	.40200	.07931	.42712	.02059	6.42688	.00591	.00093	-.00167	-.01339	.34036
7.930	.099	.40678	.08011	.41395	.02323	6.40755	.00598	.00140	-.00175	-.01738	.33178
7.930	.149	.39666	.08153	.40414	.02603	6.35310	.00608	.00151	-.00100	-.01388	.32610
7.930	.199	.39376	.08258	.40139	.02747	6.31999	.00309	.00257	-.00061	-.01445	.32524
7.930	.249	.37466	.08122	.38229	.02876	6.32930	.00923	.00171	.00095	-.01624	.30904
7.930	.299	.37634	.07997	.38377	.02729	6.36625	.00917	.00123	.00102	-.01555	.31049
7.930	.349	.36505	.08075	.37270	.02963	6.43005	.00903	-.00017	.00122	-.01603	.30193
7.930	.399	.36100	.07856	.36838	.02801	6.50706	.00589	-.00156	.00099	-.01451	.29951
7.930	.448	.34955	.07790	.35895	.02893	6.58406	.00881	-.00074	.00053	-.01485	.28999
7.930	.501	.35286	.07825	.36028	.02883	6.60921	.00877	-.00108	.00132	-.01605	.29243
7.930	.600	.34701	.07738	.35437	.02877	6.62945	.00284	-.00099	.00123	-.01679	.28622
7.930	.698	.34287	.07685	.35019	.02882	6.61989	.00283	-.00145	.00130	-.01551	.28310
7.930	.800	.33389	.07691	.34131	.03012	6.60989	.00285	-.00111	.00051	-.01664	.27621
7.930	.900	.32981	.07636	.33719	.03014	6.60011	.00287	-.00041	-.00108	-.01554	.27397
7.930	1.000	.32917	.07631	.33655	.03016	6.59033	.00289	-.00041	-.00108	-.01477	.27416
7.930	1.501	.32342	.07576	.33078	.03042	6.54122	.00285	-.00190	-.00162	-.01702	.26975
GRADIENT		-.06784	-.00459	-.06783	.00462	.19979	-.00398	-.00255	-.00037	-.00112	-.05181

RUN NO. 95/0 RN/L = .43 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA	HTE/B	CL	CD	CN	CA	Q(PSF)	CY	CBL	CYN	CAB	CLM
11.900	.054	.68301	.15595	.70049	.01179	6.42198	.00532	-.00086	-.00216	-.01115	.52902
11.900	.099	.63169	.14913	.64687	.01569	6.36605	.00863	-.00104	-.00250	-.01354	.50043
11.900	.149	.59991	.14516	.61695	.01836	6.32205	.01193	-.00072	-.00058	-.01458	.48221
11.900	.199	.58672	.14371	.60375	.01966	6.32120	.01195	-.00167	-.00037	-.01586	.47535
11.900	.248	.57420	.14229	.59120	.02085	6.35054	.01200	.00035	-.00003	-.01591	.46646
11.900	.299	.56088	.13928	.57755	.02066	6.40738	.00888	.00046	.00029	-.01609	.45708
11.900	.349	.55198	.13716	.56840	.02042	6.48438	.01174	-.00133	.00110	-.01592	.45123
11.900	.399	.53713	.13509	.55344	.02144	6.56138	.01161	-.00132	.00109	-.01719	.43968
11.900	.448	.53383	.13295	.54977	.02004	6.60547	.01742	-.00186	.00129	-.01652	.43655
11.900	.501	.53257	.13396	.54875	.02128	6.61697	.01439	-.00277	.00107	-.01683	.43511
11.900	.600	.52378	.13209	.53976	.02127	6.62600	.00558	-.00212	.00119	-.01707	.42810
11.900	.698	.51996	.13133	.53586	.02131	6.61644	-.00028	-.00204	.00110	-.01669	.42562
11.900	.800	.51171	.12958	.52744	.02130	6.60644	-.00022	-.00130	.00018	-.01439	.42141
11.900	.900	.50766	.12878	.52350	.02131	6.59666	.00570	-.00051	.00008	-.01609	.41805
11.900	1.000	.50956	.13045	.52251	.02259	6.58689	.00867	-.00062	-.00023	-.01920	.42044
11.900	1.501	.49737	.12679	.51262	.02152	6.53777	-.00321	-.00153	-.00095	-.01508	.41086
GRADIENT		-.10523	-.01781	-.10664	.00426	.19417	-.00903	-.00042	.00055	-.00181	-.07110

DATE OF NOV 72

TABULATED SOURCE DATA - MSC/LTV MA1

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## LTV L8WT 8-081 BIWIVIGINI (BELT MOVING)

(R000008) (07 NOV 72 )

## REFERENCE DATA

## PARAMETRIC DATA

BREF = 7.6875 SQ.FT. XMRP = 75.7500 INCHES  
 LREF = 2.5400 FEET YMRP = .0000 INCHES  
 BREF = 3.6780 FEET ZMRP = 14.1100 INCHES  
 SCALE = .0000

ELVN-R = .000 ELVN-L = .000  
 ELEVON = .000

RUN NO. 96/ 0 RN/L = .43 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA	HTE/B	CL	CD	CN	CA	Q(PSF)	CY	CBL	CYN	CAB	CLM
16.000	.019	.98510	.26691	1.02051	-.01490	6.42114	.00435	-.00259	-.00162	-.00794	.72936
16.000	.049	.92437	.25726	.95947	-.00744	6.37853	.00787	-.00119	-.00163	-.01149	.70477
16.000	.099	.84109	.23992	.87464	-.00115	6.33453	.01134	-.00348	-.00055	-.01524	.66344
16.000	.149	.82152	.24105	.85614	.00532	6.31999	.01158	-.00071	-.00138	-.01650	.65567
16.000	.199	.78871	.23567	.82312	.00918	6.34090	.00858	-.00103	-.00092	-.01641	.63692
16.000	.249	.76299	.22955	.79671	.01039	6.38713	.01159	-.00210	-.00095	-.01791	.61952
16.000	.299	.75266	.22776	.78628	.01152	6.46254	.01457	.00000	-.00034	-.01759	.61273
16.000	.349	.73141	.22153	.76414	.01139	6.53954	.00841	-.00191	-.00063	-.01692	.59816
16.000	.399	.72002	.21815	.75226	.01127	6.60235	.00834	-.00233	-.00049	-.01750	.59027
16.000	.448	.72061	.21963	.75324	.01253	6.61335	.00830	-.00232	-.00049	-.01964	.58948
16.000	.501	.71828	.21893	.75081	.01251	6.62485	.00828	-.00276	-.00036	-.01796	.58825
16.000	.600	.71740	.21870	.74989	.01252	6.62249	.00825	-.00364	-.00010	-.01948	.58736
16.000	.696	.71186	.21707	.74392	.01254	6.61294	.00535	-.00307	-.00007	-.01968	.58289
16.000	.800	.70235	.21572	.73461	.01381	6.60294	-.00052	-.00340	-.00144	-.02008	.57802
16.000	.900	.69550	.21375	.72748	.01380	6.59316	.00249	-.00204	-.00143	-.01948	.57289
16.000	1.000	.68979	.21212	.72134	.01381	6.58338	.00847	-.00176	.00165	-.02052	.56931
16.000	1.501	.68619	.20988	.71746	.01265	6.53427	.00846	-.00330	-.00021	-.01879	.56578
GRADIENT	-.15995	-.03215	-.16262	.01317	.18577	-.00315	-.00105	.00098	-.00548	-.09592	

RUN NO. 97/ 0 RN/L = .43 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA	HTE/B	CL	CD	CN	CA	Q(PSF)	CY	CBL	CYN	CAB	CLM
20.070	.077	1.05450	.36690	1.11706	-.01529	6.32394	.00770	-.00134	-.00075	-.01150	.81768
20.070	.099	1.03617	.36495	1.09849	-.01271	6.31999	.00472	-.00162	-.00028	-.01412	.80941
20.070	.149	.99074	.35663	1.05296	-.00494	6.33252	.01109	-.00162	.00144	-.01565	.78680
20.070	.199	.95963	.34937	1.02125	-.00108	6.37205	.00512	.00095	.00119	-.01703	.76532
20.070	.249	.92937	.34241	.99044	.00275	6.43908	.00211	.00059	.00005	-.02035	.75086
20.070	.299	.91582	.33874	.97645	.00395	6.51608	.00815	.00207	.00037	-.02526	.74176
20.070	.349	.87684	.32711	.93585	.00640	6.59308	.00809	.00091	.00000	-.02341	.71426
20.070	.399	.88548	.33029	.94506	.00643	6.61000	.00209	-.00010	-.00047	-.01980	.71949
20.070	.448	.87607	.32813	.93547	.00762	6.62100	.01098	.00033	-.00012	-.01986	.71479
20.070	.501	.87833	.32899	.93791	.00765	6.62887	.00502	-.00172	.00056	-.02181	.71725
20.070	.600	.87516	.32787	.93453	.00769	6.61909	-.00088	-.00208	.00062	-.02162	.71388
20.070	.696	.86541	.32430	.92414	.00768	6.60954	-.00083	-.00124	.00050	-.02192	.70606
20.070	.800	.86023	.32238	.91862	.00766	6.59954	-.00080	-.00090	-.00140	-.02293	.70560
20.070	.900	.85685	.32246	.91547	.00889	6.58976	-.00069	.00047	-.00034	-.02240	.70443
20.070	1.000	.85309	.31973	.91100	.00762	6.57998	.00523	.00038	-.00023	-.02269	.70151
20.070	1.501	.85472	.32176	.91323	.00897	6.53087	.00223	-.00187	.00017	-.02037	.70523
GRADIENT	-.12693	-.03198	-.13021	.01350	.17423	-.00528	-.00059	-.00039	-.00484	-.07554	

DATE 07 NOV 72

## TABULATED SOURCE DATA - MSC/LTV MAS

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LTV LSHT S-081 B3W5V11G1N1(BELT MOVING)

(R00009) ( 07 NOV 72 )

## REFERENCE DATA

## PARAMETRIC DATA

BREF = 7.6675 SQ.FT. XMRP = 75.7500 INCHES  
 LREF = 2.5400 FEET YMRP = .0000 INCHES  
 BREF = 3.6750 FEET ZMRP = 14.1100 INCHES  
 SCALE = .0000

ELVN-R = .000 ELVN-L = .000  
 ELEVON = .000

RUN NO. 99/ 0 RN/L = .45 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA	HTE/B	CL	CD	CN	CA	Q(PSF)	CY	CBL	CYN	CAB	CLM
-4.000	.183	-.23502	.06269	-.23862	.04614	6.44176	-.00511	.00477	.00021	-.02015	-.14410
-4.000	.199	-.23390	.06414	-.23780	.04767	6.41856	.00079	.00423	-.00048	-.01849	-.15083
-4.000	.249	-.20264	.06245	-.20650	.04817	6.35993	-.00231	.00718	.00003	-.01932	-.13578
-4.000	.299	-.18944	.06192	-.19330	.04855	6.31999	-.00559	.00345	.00016	-.01892	-.12879
-4.000	.349	-.19194	.06074	-.19571	.04721	6.32503	.00055	.00325	.00100	-.01752	-.13261
-4.000	.399	-.19250	.05928	-.19616	.04571	6.35856	-.00262	.00187	.00050	-.01651	-.13699
-4.000	.448	-.18078	.06065	-.18457	.04789	6.41810	-.00266	-.00046	.00036	-.01832	-.12661
-4.000	.501	-.17879	.05864	-.18244	.04603	6.49860	.00036	-.00014	.00154	-.01926	-.12752
-4.000	.600	-.17595	.05770	-.17955	.04529	6.60751	.00327	-.00068	.00189	-.01666	-.12719
-4.000	.698	-.18133	.05869	-.18485	.04391	6.62901	-.00262	-.00104	.00179	-.01746	-.13163
-4.000	.800	-.17937	.05663	-.18288	.04398	6.62043	-.00557	-.00055	.00216	-.01559	-.13183
-4.000	.900	-.18513	.05696	-.18665	.04405	6.61065	-.00854	-.00042	.00102	-.01600	-.13445
-4.000	1.000	-.18464	.05586	-.18808	.04285	6.60087	-.00857	-.00038	.00028	-.01607	-.13552
-4.000	1.496	-.18746	.05515	-.19085	.04194	6.55221	-.01165	-.00134	.00131	-.01498	-.14011
GRADIENT		.02685	-.00693	.02727	-.00504	.22312	-.00771	-.00542	.00108	.00356	.00157

RUN NO. 100/ 0 RN/L = .44 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA	HTE/B	CL	CD	CN	CA	Q(PSF)	CY	CBL	CYN	CAB	CLM
-2.050	.149	-.12985	.05973	-.13191	.05505	6.46439	.00377	.00615	.00058	-.01766	-.07233
-2.050	.199	-.11000	.06104	-.11211	.05707	6.39350	.00359	.00386	.00054	-.01747	-.06521
-2.050	.249	-.10058	.05989	-.10266	.05626	6.34438	.00965	.00572	-.00084	-.01745	-.06809
-2.050	.299	-.09125	.05983	-.09333	.05653	6.31999	.00957	.00234	.00061	-.01784	-.06233
-2.050	.349	-.08518	.06081	-.08730	.05772	6.33475	.00955	.00476	-.00009	-.01806	-.06179
-2.050	.399	-.08444	.06043	-.08654	.05737	6.37605	.00638	.00193	.00017	-.01787	-.05861
-2.050	.448	-.07893	.05966	-.08101	.05680	6.44531	.00020	.00106	.00083	-.01818	-.05710
-2.050	.501	-.07607	.05767	-.08009	.05484	6.52581	.00613	-.00003	.00162	-.01779	-.05795
-2.050	.600	-.08063	.05706	-.08262	.05414	6.61139	.00604	-.00052	.00233	-.01781	-.06052
-2.050	.698	-.08978	.05474	-.09168	.05150	6.62870	.00014	-.00086	.00150	-.01436	-.06650
-2.050	.800	-.09115	.05488	-.09305	.05159	6.61870	-.00280	-.00082	.00183	-.01573	-.06816
-2.050	.900	-.09260	.05376	-.09446	.05041	6.60892	-.00282	-.00035	.00111	-.01436	-.07092
-2.050	1.000	-.09273	.05384	-.09460	.05049	6.59914	-.00284	-.00032	.00038	-.01587	-.07102
-2.050	1.501	-.09619	.05571	-.10012	.05216	6.55003	-.00585	-.00123	.00144	-.01589	-.07582
GRADIENT		.00796	-.00585	.00816	-.00556	.21416	-.01134	-.00544	.00104	.00241	-.00834

DATE OF NOV 72

## TABULATED SOURCE DATA - MSC/LTV MAS

PAGE 48

LTV LSHT 8-081 B3W5V11G1H1(BELT MOVING)

(R00009) (07 NOV 72 )

## REFERENCE DATA

## PARAMETRIC DATA

BREP = 7.8875 SQ.FT. XMRP = 75.7500 INCHES  
 LREP = 2.8400 FEET YMRP = .0000 INCHES  
 BREP = 3.8700 FEET ZMRP = 14.1100 INCHES  
 SCALE = .0000

ELVN-R = .000 ELVN-L = .000  
 ELEVON = .000

RUN NO. 101/0 RN/L = .44 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA	HTE/B	CL	CD	CN	CA	Q(PSF)	CY	CBL	CYN	CAB	CLM
.000	.126	.00404	.05640	.00404	.05640	6.47027	-.00250	.00786	-.00048	-.01743	.01907
.000	.149	.01463	.05672	.01463	.05672	6.43804	-.00261	.00556	.00029	-.01816	.02621
.000	.199	.02284	.05741	.02284	.05741	6.37202	.00023	.00412	.00075	-.01831	.02297
.000	.249	.03256	.05915	.03256	.05915	6.32802	.00018	.00464	.00000	-.01830	.02701
.000	.299	.02882	.05925	.02882	.05925	6.31999	.00321	.00361	.00043	-.01879	.02264
.000	.349	.03474	.05772	.03474	.05772	6.34497	.00316	.00312	.00043	-.01965	.02578
.000	.399	.03318	.05858	.03318	.05858	6.39693	.00307	.00168	.00045	-.01787	.02373
.000	.448	.03378	.05790	.03378	.05790	6.47393	.00603	.00206	.00086	-.01778	.02139
.000	.501	.03341	.05849	.03341	.05849	6.55443	-.00299	.00036	.00112	-.01691	.02223
.000	.600	.02844	.05669	.02844	.05669	6.61546	.00287	-.00067	.00046	-.01845	.01631
.000	.698	.02717	.05788	.02717	.05788	6.62688	-.00010	-.00153	.00080	-.01663	.01693
.000	.800	.01544	.05670	.01544	.05670	6.61688	-.00300	-.00058	.00112	-.01823	.00746
.000	.900	.01788	.05678	.01788	.05678	6.60710	-.00302	-.00104	.00039	-.01805	.01013
.000	1.000	.01549	.05560	.01549	.05560	6.59733	.00285	-.00070	-.00026	-.01723	.00684
.000	1.501	.00964	.05858	.00964	.05858	6.54821	-.00604	-.00100	.00000	-.01744	.00261
GRADIENT	- .00863	- .00034	- .00863	- .00034	.20230	- .00325	- .00617	- .00006	.00072	- .01668	

RUN NO. 102/0 RN/L = .43 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA	HTE/B	CL	CD	CN	CA	Q(PSF)	CY	CBL	CYN	CAB	CLM
1.970	.112	.18429	.05458	.16607	.04890	6.46591	-.00891	.00770	.00068	-.01674	.12480
1.970	.149	.16313	.05756	.16501	.05192	6.41275	-.00599	.00632	.00118	-.01941	.12399
1.970	.199	.15821	.05921	.16015	.05373	6.35632	-.00614	.00491	.00049	-.01848	.11724
1.970	.249	.15669	.05818	.15860	.05276	6.31999	-.00625	.00301	.00058	-.01999	.11539
1.970	.299	.15362	.06066	.15562	.05535	6.32728	-.00317	.00439	.00096	-.02041	.10872
1.970	.349	.15518	.06043	.15716	.05506	6.36261	-.00319	.00342	.00099	-.01958	.10949
1.970	.399	.15249	.05854	.15441	.05327	6.42441	-.00526	.00102	.00109	-.01812	.10664
1.970	.448	.15058	.05914	.15252	.05393	6.50141	-.00324	.00054	.00110	-.01997	.10469
1.970	.501	.14765	.05838	.14957	.05327	6.58191	-.00026	-.00044	.00080	-.01914	.10365
1.970	.600	.14093	.05785	.14283	.05297	6.61941	-.00320	-.00038	.00112	-.01807	.09842
1.970	.698	.13387	.05631	.13573	.05168	6.62514	-.00908	-.00074	.00106	-.01889	.09371
1.970	.800	.13054	.05627	.13239	.05175	6.61314	-.00906	-.00027	.00178	-.01735	.09097
1.970	.900	.12724	.05622	.12910	.05182	6.60536	-.00612	.00008	.00070	-.01811	.08868
1.970	1.000	.12389	.05745	.12579	.05316	6.59558	-.00617	-.00085	.00000	-.01758	.08660
1.970	1.501	.11686	.05642	.12073	.05230	6.54647	-.00623	-.00087	.00000	-.01720	.08144
GRADIENT	- .03757	- .00161	- .03760	- .00031	.20265	- .00111	- .00584	- .00046	.00143	- .03347	

DATE OF NOV 72

## TABULATED SOURCE DATA - MSC/LTV MAS

PAGE 49

LTV LWT S-081 B345V11G1N1(BELT MOVING)

(000000) ( 07 NOV 72 )

## REFERENCE DATA

BREF = 7.6675 SQ.FT. XMRP = 75.7500 INCHES  
 LREF = 2.5400 FEET YMRP = .0000 INCHES  
 BREF = 3.6760 FEET ZMRP = 14.1100 INCHES  
 SCALE = .0000

## PARAMETRIC DATA

ELVN-R = .000 ELVN-L = .000  
 ELEVON = .000

RUN NO. 103/0 RN/L = .43 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA	HTE/B	CL	CD	CN	CA	Q(PSF)	CY	CBL	CYN	CAB	CLM
3.930	.099	.30925	.06406	.31292	.04272	6.45652	-.00338	.00491	-.00002	-.01606	.21903
3.930	.149	.29200	.06594	.29583	.04578	6.38763	-.00638	.00556	.00103	-.01821	.20794
3.930	.199	.27912	.06806	.28313	.04877	6.34073	-.00647	.00511	.00109	-.01894	.19560
3.930	.249	.27991	.06960	.28403	.05026	6.31999	-.00651	.00465	.00113	-.02011	.19599
3.930	.299	.27919	.06812	.28320	.04883	6.33703	-.00043	.00303	.00056	-.02019	.19388
3.930	.349	.27239	.06865	.27645	.04982	6.38015	-.00351	.00167	.00101	-.01944	.18958
3.930	.399	.26367	.06897	.26977	.05060	6.45169	-.00059	.00175	.00017	-.01913	.18432
3.930	.448	.26379	.06693	.26776	.04870	6.52869	-.00345	.00117	.00102	-.01980	.18303
3.930	.501	.25611	.06714	.26011	.04943	6.60130	.00242	-.00037	.00047	-.01917	.17725
3.930	.600	.25651	.06576	.26041	.04803	6.62330	-.00346	-.00067	.00116	-.01927	.17755
3.930	.698	.24591	.06630	.24987	.04929	6.62341	-.00640	-.00106	.00152	-.01833	.17003
3.930	.800	.23697	.06576	.24092	.04937	6.61341	-.00935	-.00150	.00115	-.01795	.16411
3.930	.900	.23615	.06577	.24010	.04944	6.60363	-.00643	-.00158	.00083	-.01857	.16325
3.930	1.000	.23297	.06562	.23692	.04950	6.59385	-.00643	-.00118	.00005	-.01908	.16061
3.930	1.501	.22648	.06556	.23044	.04989	6.54474	-.00947	-.00205	.00046	-.01780	.15623
GRADIENT	-.05725	-.00158	-.05722		.00234	.20251	-.00415	-.00595	-.00013	.00036	-.04326

RUN NO. 104/0 RN/L = .44 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA	HTE/B	CL	CD	CN	CA	Q(PSF)	CY	CBL	CYN	CAB	CLM
6.000	.079	.45439	.08057	.46032	.03264	6.46108	-.00090	.00299	-.00107	-.01483	.30938
6.000	.099	.44669	.08118	.45273	.03405	6.43208	.00221	.00454	.00068	-.01709	.30371
6.000	.149	.42447	.08050	.45056	.03569	6.36832	-.00079	.00410	.00032	-.01885	.28816
6.000	.199	.41028	.08187	.41659	.03854	6.32433	.00540	.00314	.00130	-.01814	.28047
6.000	.249	.40682	.08203	.41325	.03986	6.31999	.00544	.00402	.00042	-.02034	.27880
6.000	.299	.40001	.08326	.40652	.04100	6.34911	.00234	.00315	.00086	-.02012	.27498
6.000	.349	.39554	.08246	.40199	.04067	6.40340	.00225	.00070	.00037	-.01961	.27337
6.000	.399	.38497	.07959	.39118	.03692	6.48040	.00218	-.00064	.00128	-.02421	.26472
6.000	.448	.38260	.08018	.38889	.03975	6.55740	.00214	-.00100	.00205	-.01896	.26271
6.000	.501	.37629	.07923	.38251	.03947	6.60541	.00505	-.00155	.00177	-.01885	.25748
6.000	.600	.37139	.07986	.37770	.04061	6.62741	-.00086	-.00197	.00100	-.01850	.25396
6.000	.698	.36474	.07920	.37102	.04065	6.62158	-.00379	-.00189	.00132	-.01958	.24933
6.000	.800	.36049	.08008	.38689	.04197	6.61158	-.00377	-.00182	.00206	-.02052	.24637
6.000	.900	.35062	.07909	.35897	.04202	6.60180	-.00673	-.00197	.00018	-.01879	.24033
6.000	1.000	.34875	.08021	.35523	.04332	6.59203	-.00081	-.00207	.00027	-.01840	.24003
6.000	1.501	.34097	.07717	.34717	.04112	6.54292	-.00679	-.00210	-.00054	-.02167	.23268
GRADIENT	-.07623	-.00291	-.07610		.00526	.19378	-.00727	-.00548	-.00020	-.00196	-.05290

DATE OF NOV 72

## TABULATED SOURCE DATA - MSC/LTV MA1

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LTV LWT S-061 B3W5V11G1N1(BELT MOVING)

(R00009) (07 NOV 72)

## REFERENCE DATA

## PARAMETRIC DATA

SREF = 7.8675 SQ.FT. XRP = 75.7500 INCHES  
 LREF = 2.5400 FEET YRP = .0000 INCHES  
 BREF = 3.6780 FEET ZRP = 14.1100 INCHES  
 SCALE = .0000

ELVN-R = .000 ELVN-L = .000  
 ELEVON = .000

RUN NO. 105/0 RN/L = .44 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA	HTE/B	CL	CD	CN	CA	Q(PSF)	CY	CBL	CYN	CAB	CLM
7.930	.064	.60984	.10649	.61870	.02135	6.45749	-.00447	.00214	-.00146	-.01374	.40406
7.930	.099	.57906	.10359	.58781	.02272	6.40755	-.00736	.00271	-.00122	-.01761	.38926
7.930	.149	.54569	.10034	.55432	.02411	6.35310	.00501	.00307	-.00035	-.01820	.37081
7.930	.199	.53616	.10180	.54508	.02687	6.31999	-.00107	.00282	.00038	-.01891	.36626
7.930	.249	.52694	.10046	.53576	.02681	6.32930	-.00410	.00339	.00064	-.02041	.36041
7.930	.299	.51543	.09873	.52412	.02669	6.36625	.00192	.00032	.00040	-.01995	.35123
7.930	.349	.50441	.09818	.51313	.02767	6.43005	.00803	.00032	.00124	-.02036	.34686
7.930	.399	.50298	.09771	.51165	.02740	6.50706	.00188	-.00085	.00208	-.02047	.34408
7.930	.448	.48776	.09652	.49641	.02832	6.58406	.00187	-.00140	.00139	-.01913	.33540
7.930	.501	.48459	.09600	.49320	.02824	6.60921	-.00111	-.00140	.00098	-.01923	.33123
7.930	.600	.47499	.09459	.48350	.02816	6.62945	-.00113	-.00231	.00111	-.01902	.32983
7.930	.698	.47207	.09548	.48075	.02945	6.61989	-.00697	-.00166	.00168	-.01683	.32295
7.930	.800	.46702	.09482	.47563	.02949	6.60989	-.00696	-.00167	.00169	-.02024	.31969
7.930	.900	.45963	.09383	.46818	.02953	6.60011	-.00932	-.00213	.00135	-.01974	.31508
7.930	1.000	.45323	.09424	.46190	.03082	6.59033	-.00696	-.00189	.00023	-.02101	.31133
7.930	1.501	.44271	.09172	.45113	.02978	6.54122	-.00999	-.00193	-.00017	-.01930	.30273
GRADIENT	-10330	-.00896	-.10355	.00538	.19259	-.00789	-.00424	.00076	-.00129	-.06601	

RUN NO. 106/0 RN/L = .43 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA	HTE/B	CL	CD	CN	CA	Q(PSF)	CY	CBL	CYN	CAB	CLM
11.900	.031	.92443	.20426	.94668	.00928	6.45421	-.00593	-.00561	-.00063	-.01659	.59236
11.900	.049	.88721	.19893	.90917	.01176	6.42843	-.00574	-.00611	-.00054	-.01749	.57687
11.900	.099	.82622	.18461	.84653	.01030	6.36605	-.00535	-.00469	-.00013	-.01806	.55035
11.900	.149	.79185	.17860	.81166	.01151	6.32205	-.00201	-.00300	-.00088	-.01899	.53694
11.900	.199	.76974	.17789	.78988	.01537	6.32120	-.00180	.00042	-.00085	-.01737	.52426
11.900	.249	.75909	.17554	.77898	.01527	6.35167	-.00175	.00011	.00000	-.01947	.51948
11.900	.299	.74100	.17158	.76046	.01512	6.40758	-.00175	-.00266	.00060	-.01961	.51091
11.900	.349	.73229	.16934	.75151	.01493	6.48438	.00427	-.00318	.00079	-.02127	.50577
11.900	.399	.71166	.16759	.73092	.01727	6.56138	.00130	-.00227	.00017	-.02059	.49223
11.900	.448	.70422	.16720	.72356	.01842	6.60547	.00131	-.00165	.00080	-.02125	.48560
11.900	.501	.70424	.16715	.72357	.01837	6.61697	.00426	-.00148	-.00033	-.02102	.48675
11.900	.600	.69436	.16379	.71322	.01712	6.62600	.00126	-.00316	.00037	-.02061	.47883
11.900	.698	.68856	.16258	.70729	.01713	6.61644	-.00164	-.00305	.00069	-.02114	.47555
11.900	.800	.68367	.16288	.70257	.01843	6.60644	-.00759	-.00461	-.00055	-.02168	.47317
11.900	.900	.67787	.16165	.69664	.01842	6.59666	-.00751	-.00283	-.00095	-.02116	.46988
11.900	1.000	.67352	.15944	.69192	.01716	6.58689	-.00453	-.00281	-.00054	-.02301	.46795
11.900	1.501	.66234	.16242	.68160	.02238	6.53777	-.01046	-.00183	-.00083	-.02102	.45954
GRADIENT	-15312	-.02473	-.15492	.00738	.18419	-.00407	.00087	-.00026	-.00335	-.08330	

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## TABULATED SOURCE DATA - MSC/LTV MAI

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LTV LWT S-081 B345V11C1N1(BELT MOVING)

(R00009) (07 NOV 72)

## REFERENCE DATA

## PARAMETRIC DATA

BREF = 7.8875 SQ.FT. XMRP = 75.7500 INCHES  
 LREF = 2.5400 FEET YMRP = .0000 INCHES  
 BREF = 3.6760 FEET ZMRP = 14.1100 INCHES  
 SCALE = .0000

ELVN-R = .000 ELVN-L = .000  
 ELEVON = .000

RUN NO. 107/0 RN/L = .44 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA	HTE/B	CL	CD	CN	CA	Q(PSF)	CY	CBL	CYN	CAB	CLM
16.000	.027	1.08757	.33687	1.13829	.02410	6.40986	.00238	-.00885	.00207	-.02197	.70275
16.000	.049	1.06451	.33146	1.11464	.02525	6.37853	-.00013	-.00216	.00120	-.02096	.70125
16.000	.099	.98615	.30745	1.03269	.02377	6.33453	.00649	-.00351	.00244	-.02100	.66812
16.000	.149	.93815	.29631	.98348	.02629	6.31999	.01288	-.00594	.00323	-.01912	.64737
16.000	.199	.93052	.28984	.97436	.02218	6.34090	.00384	-.00111	.00206	-.02284	.64434
16.000	.249	.90438	.28618	.94823	.02586	6.38713	.00699	-.00059	.00232	-.02272	.63075
16.000	.299	.88983	.28033	.93263	.02425	6.46254	.00391	-.00179	.00300	-.02296	.62367
16.000	.349	.87269	.27507	.91470	.02391	6.53954	.00100	.00036	.00189	-.02299	.61365
16.000	.399	.85290	.27043	.89440	.02491	6.60235	.00692	.00008	.00127	-.02267	.60096
16.000	.448	.85100	.27114	.89277	.02611	6.61355	.00404	.00286	.00079	-.02351	.59837
16.000	.501	.84807	.27158	.89008	.02735	6.62485	.00395	.00047	.00073	-.02393	.59669
16.000	.600	.84352	.26767	.88463	.02484	6.62249	.00103	.00036	.00187	-.02435	.59363
16.000	.698	.84803	.26899	.88932	.02487	6.61294	-.00479	.00288	.00028	-.02478	.59620
16.000	.800	.83791	.26746	.87917	.02619	6.60294	-.01374	-.00101	-.00060	-.02417	.59204
16.000	.900	.83354	.26621	.87463	.02619	6.59316	-.00484	.00027	-.00046	-.02459	.58871
16.000	1.000	.82476	.26372	.86550	.02621	6.58338	.00109	-.00097	.00228	-.02452	.58407
16.000	1.501	.80951	.25949	.84968	.02635	6.53427	-.00769	.00148	.00027	-.02229	.57527
GRADIENT	-.15996	-.04417	-.16594	.00163	.18814	-.01072	.00420	-.00172	-.00209	-.08124	

RUN NO. 108/0 RN/L = .43 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA	HTE/B	CL	CD	CN	CA	Q(PSF)	CY	CBL	CYN	CAB	CLM
20.070	.071	1.08419	.43987	1.16930	.04117	6.32894	.00298	-.00372	.00077	-.03064	.75170
20.070	.099	1.03073	.42013	1.11231	.04097	6.31999	.01368	-.00385	.00260	-.02990	.72915
20.070	.149	.98920	.40193	1.06706	.03812	6.33252	.00966	-.00568	.00154	-.02928	.70940
20.070	.199	.96161	.39283	1.03802	.03905	6.37205	.01595	-.00414	.00184	-.02735	.69820
20.070	.249	.95173	.38592	1.02637	.03595	6.43908	.00394	.00108	-.00111	-.02822	.69572
20.070	.299	.93349	.38015	1.00726	.03679	6.51608	.00390	.00020	-.00077	-.02731	.68459
20.070	.349	.92928	.37810	1.00260	.03631	6.59308	-.00188	.00441	-.00165	-.02764	.68322
20.070	.399	.91833	.37670	.99184	.03675	6.61000	.00099	.00226	-.00198	-.02837	.67549
20.070	.448	.92102	.37761	.99467	.03868	6.62100	.00104	.00466	-.00208	-.02755	.67522
20.070	.501	.92325	.37838	.99703	.03864	6.62887	-.00480	.00516	-.00236	-.02845	.67771
20.070	.600	.92943	.37944	1.00321	.03751	6.61909	-.00211	-.00081	-.00124	-.02873	.68164
20.070	.698	.91564	.37433	.98849	.03744	6.60954	-.01647	.00704	-.00324	-.02937	.67552
20.070	.800	.91217	.37455	.98530	.03884	6.59954	-.00206	-.00151	-.00178	-.02812	.67195
20.070	.900	.92041	.37627	.99364	.03762	6.58976	-.00783	.00302	-.00041	-.02922	.67623
20.070	1.000	.91750	.37520	.99054	.03762	6.57998	-.00770	.00586	-.00069	-.02941	.67590
20.070	1.501	.90384	.36915	.97564	.03663	6.53087	-.00188	.00224	-.00083	-.02766	.66626
GRADIENT	-.08467	-.03266	-.09073	-.00163	.17334	-.01359	.00531	-.00175	.00042	-.04177	

DATE OF NOV 72

## TABULATED SOURCE DATA - MSC/LTV MAT

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LTV LWT S-001 B3W5V1161 (BELT MOVING)

(R00010) (07 NOV 72)

## REFERENCE DATA

BREF = 7.6675 SQ.FT. XMRP = 75.7500 INCHES  
 LREF = 2.8400 FEET YMRP = .0000 INCHES  
 BREF = 3.6760 FEET ZMRP = 14.1100 INCHES  
 SCALE = .0000

## PARAMETRIC DATA

ELVN-R = .000 ELVN-L = .000  
 ELEVON = .000

RUN NO. 110/0 RN/L = .45 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA	HTE/B	CL	CD	CN	CA	Q(PSF)	CY	CBL	CYN	CAB	CLM
-4.000	.183	-.24691	.05631	-.25238	.04081	6.44176	.00122	.00741	.00118	-.01863	-.14257
-4.000	.199	-.23315	.05666	-.23668	.04228	6.41856	.00720	.00791	-.00022	-.01748	-.13316
-4.000	.249	-.21963	.05691	-.22327	.04144	6.35993	.00710	.00461	.00034	-.01758	-.12860
-4.000	.299	-.20220	.05600	-.20561	.04176	6.31999	.01013	.00551	.00083	-.01551	-.12301
-4.000	.349	-.19714	.05562	-.20054	.04173	6.32503	.01319	.00441	.00197	-.01207	-.11921
-4.000	.399	-.18653	.05340	-.18980	.04026	6.35856	.00689	.00208	.00251	-.01566	-.11237
-4.000	.448	-.18610	.05431	-.18944	.04119	6.41810	.00984	.00250	.00218	-.01487	-.11500
-4.000	.501	-.18497	.05501	-.18838	.04198	6.49860	.00969	.00200	.00212	-.01551	-.11540
-4.000	.600	-.18190	.05287	-.18514	.04005	6.60751	.00654	-.00033	.00302	-.01593	-.11191
-4.000	.698	-.18608	.05176	-.18924	.03866	6.62901	.00362	.00059	.00340	-.01856	-.11530
-4.000	.800	-.18748	.05192	-.19065	.03871	6.62043	.00068	.00068	.00300	-.01492	-.11611
-4.000	.900	-.19125	.05225	-.19443	.03878	6.61063	.00066	-.00023	.00295	-.01372	-.11871
-4.000	1.000	-.19284	.05115	-.19594	.03758	6.60087	-.00228	.00060	.00187	-.01456	-.12066
-4.000	1.496	-.19090	.05133	-.19402	.03789	6.55221	-.00236	-.00016	.00257	-.01434	-.12135
GRADIENT	.02919	-.00581	.02953	-.00376	.22312	-.00954	-.00594	.00174	.00204	.00916	

RUN NO. 111/0 RN/L = .44 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA	HTE/B	CL	CD	CN	CA	Q(PSF)	CY	CBL	CYN	CAB	CLM
-2.050	.149	-.12633	.05317	-.13015	.04655	6.46439	.00086	.00619	.00090	-.01824	-.06406
-2.050	.199	-.10834	.05570	-.11046	.05178	6.39350	-.00230	.00680	.00129	-.01712	-.05803
-2.050	.249	-.10119	.05588	-.10312	.05223	6.34438	.00370	.00627	.00060	-.01900	-.05783
-2.050	.299	-.08224	.05283	-.08408	.04985	6.31999	.00051	.00444	.00090	-.01693	-.04648
-2.050	.349	-.07966	.05394	-.08154	.05106	6.33475	.00662	.00383	.00097	-.01822	-.04616
-2.050	.399	-.08164	.05239	-.08347	.04944	6.37605	.00354	.00331	.00282	-.01756	-.04792
-2.050	.448	-.07954	.05310	-.08139	.05022	6.44531	.00646	.00183	.00242	-.01720	-.04695
-2.050	.501	-.07629	.05109	-.07807	.04833	6.52581	.00636	.00180	.00239	-.01679	-.04569
-2.050	.600	-.08250	.05070	-.08406	.04773	6.61139	-.00257	.00104	.00186	-.01596	-.04953
-2.050	.698	-.07754	.04917	-.07925	.04636	6.62670	-.00259	.00103	.00185	-.01458	-.04741
-2.050	.800	-.08471	.04952	-.08642	.04646	6.61870	-.00555	-.00035	.00363	-.01412	-.05276
-2.050	.900	-.08374	.04628	-.08541	.04526	6.60892	-.00557	.00060	.00218	-.01465	-.05286
-2.050	1.000	-.09311	.04993	-.09463	.04657	6.59914	-.00261	.00058	.00111	-.01512	-.05846
-2.050	1.501	-.09361	.04904	-.09550	.04565	6.55003	-.00559	.00014	.00219	-.01515	-.05622
GRADIENT	.01030	-.00534	.01049	-.00497	.21416	-.00769	-.00536	.00094	.00320	-.00203	

DATE OF NOV 72

## TABULATED SOURCE DATA - MSC/LTV MA1

PAGE 53

LTV LWT S-081 B345V11G1 (BELT MOVING)

(R00010) (07 NOV 72)

## REFERENCE DATA

BREF = 7.8875 SQ.FT. XMRP = 75.7500 INCHES  
 LREF = 2.8400 FEET YMRP = .0000 INCHES  
 BREF = 3.6760 FEET ZMRP = 14.1100 INCHES  
 SCALE = .0000

## PARAMETRIC DATA

ELVN-R = .000 ELVN-L = .000  
 ELEVON = .000

RUN NO. 112/0 RN/L = .44 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA	HTE/B	CL	CD	CN	CA	Q (PSF)	CY	CBL	CYN	CAB	CLM
.000	.126	.01209	.05132	.01209	.05132	6.47027	-.00561	.00696	.00062	-.01757	.01976
.000	.149	.01459	.05158	.01459	.05158	6.43804	-.00565	.00605	.00139	-.01536	.02214
.000	.199	.02159	.05478	.02159	.05478	6.37202	-.00274	.00654	.00107	-.01706	.02136
.000	.249	.03377	.05388	.03377	.05388	6.32802	-.00283	.00611	.00109	-.01575	.02727
.000	.299	.02882	.05398	.02882	.05398	6.31999	-.00289	.00514	.00110	-.01694	.02221
.000	.349	.03699	.05512	.03699	.05512	6.34497	-.00294	.00466	.00188	-.01802	.02484
.000	.399	.03428	.05468	.03428	.05468	6.39693	.00008	.00314	.00230	-.01694	.02283
.000	.448	.03276	.05275	.03276	.05275	6.47393	.00306	.00163	.00270	-.01677	.02259
.000	.501	.02994	.05213	.02994	.05213	6.55443	.00000	.00074	.00152	-.01597	.01964
.000	.600	.02956	.05166	.02956	.05166	6.61548	-.00296	.00078	.00184	-.01720	.01811
.000	.698	.02368	.05284	.02368	.05284	6.62688	-.00883	.00043	.00177	-.01556	.01453
.000	.800	.02262	.05165	.02262	.05165	6.61688	-.00883	.00043	.00177	-.01575	.01458
.000	.900	.01677	.05173	.01677	.05173	6.60710	-.00884	.00042	.00177	-.01735	.00995
.000	1.000	.01682	.05181	.01682	.05181	6.59753	-.00594	-.00009	.00071	-.01532	.00998
.000	1.501	.01218	.05092	.01218	.05092	6.54821	-.00890	.00087	.00178	-.01580	.00626
GRADIENT	-.00843	-.00192	-.00843	-.00192	.20230	-.00526	-.00556	.00030	.00097	-.01444	

RUN NO. 113/0 RN/L = .44 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA	HTE/B	CL	CD	CN	CA	Q (PSF)	CY	CBL	CYN	CAB	CLM
1.970	.112	.14192	.05392	.14369	.04901	6.46591	-.00606	.00710	.00040	-.01630	.09667
1.970	.149	.15140	.05469	.15319	.04945	6.41275	-.00316	.00571	.00089	-.01733	.10134
1.970	.199	.15355	.05783	.15545	.05252	6.35632	-.00620	.00869	.00112	-.01804	.09916
1.970	.249	.15467	.05030	.15631	.04495	6.31999	-.00019	.00619	.00131	-.01759	.09752
1.970	.299	.15296	.05678	.15482	.05149	6.32728	-.00020	.00573	.00134	-.01946	.09641
1.970	.349	.14240	.05746	.14429	.05253	6.36261	.00280	.00282	.00265	-.01708	.08969
1.970	.399	.14581	.05579	.14764	.05074	6.42441	.00273	.00276	.00187	-.01824	.09067
1.970	.448	.14630	.05652	.14816	.05146	6.50141	-.00037	.00138	.00150	-.01972	.09000
1.970	.501	.14103	.05570	.14286	.05082	6.58191	-.00035	.00136	.00148	-.01863	.08690
1.970	.600	.13216	.05512	.13398	.05054	6.61941	-.00331	.00001	.00112	-.01760	.08224
1.970	.698	.12742	.05491	.12923	.05049	6.62514	-.00623	.00008	.00145	-.01625	.07952
1.970	.800	.12294	.05483	.12475	.05057	6.61514	-.00916	.00014	.00178	-.01596	.07655
1.970	.900	.12078	.05481	.12260	.05063	6.60536	-.00620	.00098	.00141	-.01777	.07469
1.970	1.000	.11751	.05477	.11932	.05070	6.59558	-.00329	-.00002	.00039	-.01783	.07303
1.970	1.501	.11250	.05497	.11432	.05108	6.54647	-.00626	.00049	.00070	-.01625	.06978
GRADIENT	-.03439	-.00023	-.03438	-.00096	.20265	-.00388	-.00592	-.00029	.00081	-.02576	

DATE OF NOV 72

## TABULATED SOURCE DATA - MSC/LTV MAI

PAGE 84

LTV LWT 6-001 B34BSV11G1 (BELT MOVING)

(R00010) (07 NOV 72)

## REFERENCE DATA

BREF = 7.6675 SQ.FT. XMRP = 75.7500 INCHES  
 LREF = 2.3400 FEET YMRP = .0000 INCHES  
 BREF = 3.6700 FEET ZMRP = 14.1100 INCHES  
 SCALE = .0000

## PARAMETRIC DATA

ELVN-R = .000 ELVN-L = .000  
 ELEVON = .000

RUN NO. 114/0 RN/L = .43 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA	HTE/B	CL	CD	CN	CA	Q(PSF)	CY	CBL	CYN	CAB	CLM
3.930	.099	.29086	.06171	.29440	.04164	6.45852	-.00966	.00726	-.00024	-.01595	.18147
3.930	.149	.27842	.06133	.28197	.04211	6.38763	-.00979	.00548	.00066	-.01731	.17275
3.930	.199	.27047	.06502	.27429	.04633	6.34073	-.00978	.00696	.00055	-.01729	.16776
3.930	.249	.26655	.06360	.27028	.04518	6.31999	-.00063	.00449	.00203	-.01761	.16395
3.930	.299	.26562	.06473	.26943	.04640	6.33703	-.00375	.00445	.00084	-.01634	.16187
3.930	.349	.26020	.06537	.26407	.04739	6.38013	-.00679	.00351	.00048	-.01761	.15986
3.930	.399	.25605	.06460	.25987	.04691	6.45169	-.00681	.00112	.00066	-.01659	.15605
3.930	.448	.25182	.06377	.25560	.04636	6.52869	-.00673	.00070	.00144	-.01768	.15309
3.930	.501	.24435	.06273	.24808	.04584	6.60130	-.00371	.00101	.00032	-.01913	.14742
3.930	.600	.24240	.06371	.24619	.04695	6.62330	-.00372	-.00034	.00043	-.01984	.14782
3.930	.698	.23658	.06330	.24036	.04694	6.62341	-.00663	.00017	.00072	-.01814	.14407
3.930	.800	.22784	.06276	.23141	.04702	6.61341	-.01250	-.00013	.00141	-.01810	.13884
3.930	.900	.22687	.06275	.23063	.04706	6.60363	-.00954	.00070	.00101	-.01709	.13853
3.930	1.000	.22016	.06258	.22392	.04715	6.59385	-.01254	-.00019	.00067	-.01756	.13342
3.930	1.501	.21751	.05870	.22102	.04366	6.54474	-.00964	-.00029	.00035	-.01226	.13247
GRADIENT	-.05368	-.00260	-.05373	.00108	.20251	-.00333	-.00560	-.00001	.00217	-.03523	

RUN NO. 115/0 RN/L = .44 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA	HTE/B	CL	CD	CN	CA	Q(PSF)	CY	CBL	CYN	CAB	CLM
6.000	.079	.44937	.07912	.45518	.03172	6.46108	-.00738	.00462	.00100	-.01503	.26763
6.000	.099	.43255	.07743	.43827	.03180	6.43208	-.00127	.00490	.00029	-.01638	.25869
6.000	.149	.41353	.08093	.41973	.03729	6.36832	.00188	.00589	.00061	-.02034	.24791
6.000	.199	.40192	.07999	.40808	.03755	6.32433	-.00117	.00458	.00111	-.02278	.24088
6.000	.249	.39247	.07901	.39858	.03757	6.31999	.00192	.00416	.00237	-.02041	.23411
6.000	.299	.38832	.07841	.39439	.03740	6.34911	.00492	.00215	.00224	-.01741	.23215
6.000	.349	.37290	.07779	.37899	.03840	6.40340	.00182	.00080	.00272	-.01108	.22218
6.000	.399	.37656	.07903	.38276	.03926	6.46040	.00469	-.00121	.00183	-.01763	.22405
6.000	.448	.37916	.07887	.38533	.03882	6.55740	-.00129	-.00101	.00245	-.01880	.22675
6.000	.501	.37180	.07780	.37789	.03852	6.60541	.00459	-.00164	.00184	-.01367	.22212
6.000	.600	.36701	.07720	.37507	.03842	6.62741	-.00132	-.00200	.00180	-.01906	.21797
6.000	.698	.36030	.07777	.36646	.03969	6.62158	-.00129	-.00200	.00180	-.02634	.21440
6.000	.800	.34354	.07804	.34961	.03972	6.61158	-.00709	-.00138	.00240	-.02059	.20479
6.000	.900	.34171	.07592	.34776	.03979	6.60180	-.01008	-.00183	.00204	-.01947	.20332
6.000	1.000	.33306	.07502	.33907	.03980	6.59203	-.00410	-.00103	.00203	-.02095	.19922
6.000	1.501	.33330	.07408	.33922	.03885	6.54292	-.00417	-.00197	.00215	-.01768	.19827
GRADIENT	-.07744	-.00413	-.07745	.00399	.19378	-.00504	-.00591	.00085	-.00189	-.04696	

DATE OF NOV 72

## TABULATED SOURCE DATA - MSC/LTV MA1

PAGE 35

LTV LWT S-081 B36SV1161 (BELT MOVING)

(R00010) (07 NOV 72)

## REFERENCE DATA

BREF = 7.8875 SQ.FT. XMRP = 75.7500 INCHES  
 LREF = 2.9400 FEET YMRP = .0000 INCHES  
 BREF = 3.6760 FEET ZMRP = 14.1100 INCHES  
 SCALE = .0000

## PARAMETRIC DATA

ELVN-R = .000 ELVN-L = .000  
 ELEVON = .000

RUN NO. 116/0 RN/L = .43 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA	HTE/B	CL	CD	CN	CA	Q (PSF)	CY	CBL	CYN	CAB	CLM
7.930	.064	.60234	.10201	.61065	.01794	6.45749	-.00212	.00154	-.00086	-.01435	.35168
7.930	.099	.55975	.09740	.56763	.01926	6.40755	-.00192	.00115	-.00005	-.01574	.33077
7.930	.149	.53884	.09987	.54747	.02459	6.35510	-.00466	.00174	.00019	-.01818	.32140
7.930	.199	.51622	.09814	.52483	.02599	6.31999	.00132	.00067	.00043	-.01859	.30739
7.930	.249	.51066	.09729	.51920	.02592	6.32930	.00141	.00267	.00091	-.01629	.30416
7.930	.299	.50649	.09657	.51497	.02578	6.36625	.00442	.00160	.00072	-.01961	.30126
7.930	.349	.49192	.09557	.50040	.02680	6.43005	.00440	.00066	.00085	-.01901	.29397
7.930	.399	.49200	.09401	.50027	.02524	6.50706	.00428	-.00016	.00172	-.02210	.29228
7.930	.448	.47477	.09130	.48283	.02494	6.58406	.00422	-.00164	.00117	-.02003	.28268
7.930	.501	.46813	.09157	.47629	.02612	6.60921	.00124	-.00244	.00162	-.01850	.27827
7.930	.600	.46336	.08955	.47129	.02476	6.62945	-.00459	-.00099	.00132	-.01124	.27433
7.930	.698	.46141	.09187	.46967	.02735	6.61989	-.00171	-.00324	.00208	-.01835	.27384
7.930	.800	.45780	.09011	.46585	.02610	6.60969	-.00458	-.00225	.00226	-.01767	.27317
7.930	.900	.45243	.09087	.46081	.02740	6.60011	-.00753	-.00180	.00179	-.01844	.26868
7.930	1.000	.44719	.09124	.45550	.02868	6.59033	-.00437	-.00191	.00147	-.01676	.26597
7.930	1.501	.44497	.08986	.45312	.02762	6.54122	-.00756	-.00229	.00187	-.00822	.26532
GRADIENT		-.09350	-.00824	-.09374	.00474	.19259	-.00635	-.00365	.00166	.00424	-.05404

RUN NO. 117/0 RN/L = .43 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA	HTE/B	CL	CD	CN	CA	Q (PSF)	CY	CBL	CYN	CAB	CLM
11.900	.031	.89906	.19693	.92034	.00735	6.45421	.00218	-.00586	.00005	-.01653	.50575
11.900	.049	.85623	.18913	.87663	.00854	6.42843	.00536	-.00927	.00043	-.01681	.48676
11.900	.099	.80400	.17792	.82341	.00834	6.36605	-.00013	-.00342	.00058	-.01822	.46458
11.900	.149	.76461	.17086	.78341	.00955	6.32205	.00319	-.00298	.00090	-.01878	.44596
11.900	.199	.74167	.16868	.76071	.01210	6.32120	.00027	-.00239	.00112	-.01847	.43656
11.900	.249	.73103	.16762	.74989	.01331	6.35167	.00343	-.00095	.00123	-.01954	.43148
11.900	.299	.71195	.16344	.73035	.01315	6.40738	.00950	-.00213	.00077	-.01950	.42162
11.900	.349	.69827	.16305	.71689	.01559	6.48438	.00634	-.00380	.00149	-.01963	.41344
11.900	.399	.69028	.15988	.70842	.01413	6.56138	.00335	-.00213	.00221	-.01612	.40791
11.900	.448	.68320	.15956	.70142	.01528	6.60547	.00628	-.00239	.00116	-.01939	.40453
11.900	.501	.67564	.15860	.69676	.01528	6.61697	.00030	-.00468	.00084	-.01876	.40229
11.900	.600	.67510	.15911	.69340	.01651	6.62600	-.00259	-.00336	.00013	-.02046	.39929
11.900	.698	.66955	.15667	.66746	.01526	6.61644	-.00349	-.00311	.00116	-.01935	.39613
11.900	.800	.66607	.15595	.66391	.01528	6.60644	-.00551	-.00372	.00054	-.02166	.39453
11.900	.900	.65661	.15523	.67450	.01653	6.59666	-.00545	-.00328	.00044	-.02173	.38980
11.900	1.000	.66010	.15469	.67762	.01528	6.58669	-.00245	-.00205	.00211	-.02128	.39149
11.900	1.501	.64680	.15720	.66531	.02047	6.53777	-.00543	-.00345	.00201	-.01972	.38480
GRADIENT		-.14291	-.02219	-.14383	.00762	.18419	-.00631	.00120	.00073	-.00267	-.07184

DATE OF NOV 72

## TABULATED SOURCE DATA - MSC/LTV MA1

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LTV LWT S-001 83L5V1161 (BELT MOVING)

(R00010) (07 NOV 72)

## REFERENCE DATA

## PARAMETRIC DATA

BREF = 7.6675 SQ.FT. XMRP = 75.7500 INCHES  
 LREF = 2.5400 FEET YMRP = .0000 INCHES  
 BREF = 3.6760 FEET ZMRP = 14.1100 INCHES  
 SCALE = .0000

ELVN-R = .000 ELVN-L = .000  
 ELEVON = .000

RUN NO. 118/0 RN/L = .44 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA	HTE/B	CL	CD	CN	CA	Q (PSF)	CY	CBL	CYN	CAB	CLM
16.000	.027	1.05133	.34229	1.10497	.03929	6.40986	.01329	-.00829	.00385	-.02598	.56570
16.000	.049	1.01793	.32988	1.06942	.03657	6.37853	-.00132	-.00236	.00304	-.02502	.56073
16.000	.099	.92397	.30286	.97166	.03650	6.33453	.00824	-.00959	.00488	-.02501	.54038
16.000	.149	.69508	.29025	.94041	.03234	6.31999	-.00033	.00228	.00241	-.02476	.52943
16.000	.199	.87181	.28617	.91691	.03483	6.34090	-.00340	-.00054	.00279	-.02588	.51827
16.000	.249	.86638	.28158	.91043	.03191	6.38713	-.00021	.00203	.00164	-.02525	.51638
16.000	.299	.83478	.27211	.87744	.03152	6.46254	.00574	-.00280	.00234	-.02344	.49892
16.000	.349	.82091	.27032	.86362	.03362	6.53954	.00290	.00203	.00201	-.02456	.49232
16.000	.399	.81206	.26742	.85431	.03327	6.60235	.00587	.00274	.00142	-.02380	.48787
16.000	.448	.81214	.26610	.85403	.03198	6.61335	-.00005	.00238	.00143	-.02418	.48750
16.000	.501	.79523	.26507	.83748	.03585	6.62485	-.00290	.00320	.00078	-.02477	.47824
16.000	.600	.78550	.26231	.82737	.03568	6.62249	-.00300	.00015	.00015	-.02503	.47205
16.000	.698	.80064	.26410	.84242	.03322	6.61294	-.01468	.00424	.00031	-.02459	.48064
16.000	.800	.78625	.26188	.82990	.03450	6.60294	-.00878	.00260	.00165	-.02392	.47499
16.000	.900	.79943	.26126	.84047	.03083	6.59316	-.00600	-.00086	.00311	-.02502	.48085
16.000	1.000	.79243	.26051	.85354	.03204	6.58338	-.00574	.00551	.00198	-.02617	.47709
16.000	1.501	.76743	.25806	.82805	.03106	6.53427	-.00596	-.00024	.00373	-.02245	.47290
GRADIENT		-.14475	-.04490	-.15152	-.00327	.18814	-.01096	.00457	-.00048	.00105	-.06798

RUN NO. 119/0 RN/L = .44 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA	HTE/B	CL	CD	CN	CA	Q (PSF)	CY	CBL	CYN	CAB	CLM
20.070	.079	1.02405	.43309	1.11048	.05544	6.32194	.00767	-.00632	.00454	-.03549	.60607
20.070	.099	.98513	.41659	1.06895	.05517	6.31999	.00821	.00081	.00182	-.03389	.59039
20.070	.149	.94044	.39921	1.02033	.05230	6.33252	.00221	-.00266	.00465	-.03276	.57165
20.070	.199	.89916	.38356	.97818	.05178	6.37205	.01466	-.00299	.00163	-.03221	.55450
20.070	.249	.87185	.37018	.94594	.04857	6.43908	-.00039	.00005	.00228	-.03127	.53991
20.070	.299	.86486	.36691	.93825	.04790	6.51608	.00282	.00677	-.00223	-.03115	.53506
20.070	.349	.83713	.35749	.90897	.04857	6.59308	.00574	.00315	.00034	-.03140	.52201
20.070	.399	.83016	.35617	.90199	.04971	6.61000	.00274	.00212	-.00128	-.03132	.51779
20.070	.448	.83099	.35639	.90282	.04964	6.62100	.00561	.00067	-.00108	-.03192	.51627
20.070	.501	.83092	.35624	.90271	.04952	6.62887	-.00877	.00962	-.00270	-.03156	.51689
20.070	.600	.83857	.35648	.90998	.04712	6.61909	-.00894	.00570	-.00279	-.03003	.52235
20.070	.698	.83279	.35577	.90431	.04643	6.60954	-.00601	.00529	-.00378	-.03260	.51846
20.070	.800	.84451	.35880	.91616	.04733	6.59954	-.00325	.00074	-.00005	-.03145	.52548
20.070	.900	.83499	.35403	.90577	.04603	6.58976	-.01183	.00810	-.00177	-.03141	.51846
20.070	1.000	.85197	.35901	.92343	.04490	6.57998	-.00895	.00743	.00050	-.03190	.52878
20.070	1.501	.81434	.34962	.88486	.04899	6.53087	-.00306	.00192	.00188	-.02940	.50958
GRADIENT		-.10265	-.04283	-.11130	-.00494	.17458	-.01293	.00541	-.00197	.00228	-.04948

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## TABULATED SOURCE DATA - MSC/LTV MA1

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LTV LSWT S-001 B34BV1161 (BELT STATIONARY)

(R00011) (07 NOV 72)

## REFERENCE DATA

BREF = 7,8875 SQ.FT. XMRP = 75.7500 INCHES  
 LREF = 2,5400 FEET YMRP = .0000 INCHES  
 BREF = 3,8780 FEET ZMRP = 14.1100 INCHES  
 SCALE = .0000

## PARAMETRIC DATA

ELVN-R = .000 ELVN-L = .000  
 ELEVON = .000

RUN NO. 120/0 RN/L = .44 GRADIENT INTERVAL = -.00/ .00

ALPHA	HTE/B	CL	CD	CN	CA	Q(PSF)	CY	CBL	CYN	CAB	CLM
16.000	.027	1.06555	.33973	1.11791	.03292	6.40986	.00699	-.01139	.00470	-.02763	.58936
16.000	.049	1.00579	.32376	1.05608	.03405	6.37853	.00753	-.01059	.00442	-.02772	.56959
16.000	.099	.94744	.30419	.99458	.03131	6.33453	.01115	-.01067	.00410	-.02819	.55171
16.000	.149	.91471	.30019	.96202	.03648	6.31999	.00231	-.00656	.00470	-.02857	.53887
16.000	.199	.89576	.29446	.94223	.03619	6.34090	.00265	-.00014	.00276	-.02789	.53204
16.000	.249	.86717	.28736	.91278	.03725	6.38713	.00253	-.00631	.00537	-.02788	.51729
16.000	.299	.86279	.28152	.90698	.03284	6.46254	-.00322	.00193	.00278	-.02763	.51554
16.000	.349	.84351	.27683	.88714	.03365	6.53954	-.00007	.00354	.00191	-.02786	.50746
16.000	.399	.82615	.27280	.86934	.03456	6.60235	-.00294	.00498	.00180	-.02688	.49665
16.000	.448	.81635	.27237	.85985	.03703	6.61335	.00575	.00037	.00136	-.02721	.49166
16.000	.501	.81043	.27077	.85367	.03694	6.62485	-.00001	.00328	.00118	-.02728	.48770
16.000	.600	.82225	.27234	.86563	.03577	6.62249	-.00021	-.00106	.00094	-.02767	.49518
16.000	.698	.81559	.27109	.85871	.03583	6.61294	-.00023	-.00218	.00204	-.02862	.49039
16.000	.800	.81356	.27051	.85661	.03563	6.60294	-.00891	.00155	.00119	-.02675	.49089
16.000	.900	.81279	.26904	.85546	.03462	6.59316	-.00596	.00181	.00232	-.02653	.48874
16.000	1.000	.81181	.26882	.85446	.03468	6.58336	-.00894	.00107	.00289	-.02682	.48903
16.000	1.501	.80069	.26715	.84331	.03614	6.53427	-.00590	.00270	.00207	-.02584	.48288
GRADIENT	-.14044	-.03886	-.14571	.00135	.18814	-.01134	.00824	-.00195	.00139	-.06209	